BULLETIN

MADRAS DEVELOPMENT SEMINAR SERIES

Vol. XX No. 5 and 6 May - June 1990

Ent
3-7-90

Reservation : Promise and performance

Report on the workshop on Backward Classes and Reservations

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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

State Budget 1990-91

Presenting the Budget for 1990-91, the Chief Minister who is also the Finance Minister pointed out that the revised revenue deficit for 1989-90 was Rs. —518.56 crores (against the budget estimate of —288.49 crores) because while revenue receipts were up from Rs. 3845.74 crores in the budget estimate to Rs. 4044.24 crores in the revised estimates, revenue expenditure shot up from Rs. 4134.23 crores to 4562.80 crores. On capital account, however the estimated surplus of Rs. 40.75 crores increased to Rs: 108.245 crores in the revised estimates, reducing the deficit to — Rs. 410.31 crores as against the budget estimate of — Rs. 247.74 crores. The public account was to provide Rs. 90.07 crores and in the revised budget provides Rs. 261.62 crores, resulting in the net overall revised deficit of — Rs. 148.69 crores against the budgeted of — Rs. 149.67 crores, as a result of additional resource mobilisation by the government. The budget estimate for 1990-91 shows a revenue receipt of Rs. 4397.46 crores, a revenue expenditure of Rs. 4814.09 crores resulting in a revenue deficit of Rs. 416.63 crores. Taking into account the net effect of other accounts (public) the deficit is — Rs. 349.36 crores to which the closing deficit of 1989-90 of — Rs. 160.74 crores should be added, giving a total deficit of — Rs. 510.10 crores. The additional taxes (Rs. 62 crores) and non tax revenue (Rs. 180 crores) will yield Rs. 242 crores so that the final deficit will be — Rs. 268.10 crores, which it is hoped will be covered by "improvements in our share of Union taxes, (on which the government is critical of the IX Finance Commission's report which restricts the share of excise to the states to 45 per cent — really reducing Tamil Nadu's (most states') share from 40 per cent to 32.575 per cent as 7.425 per cent is to be made available to a few deficit states: the government has asked the Union government to increase the share of the states to 50 per cent, which would have

given Tamil Nadu 42.5 per cent, using the balance of 7.5 per cent for the deficit states : further according to the revised estimates of union taxes, Tamil Nadu's share should have been Rs. 947.28 crores : allowing for a normal 10-12 per cent growth in tax realisation, the state's share should have been Rs. 1000 crores. But the commission has recommended only Rs. 996.68 crores, there were also gross disparities in the allocations to states, with UP, Bihar, MP, being favoured and West Bengal, AP and particularly Tamil Nadu receiving a much smaller share, with nil for Karnataka and becoming a mistake in the basic assumption. Tamil Nadu is allotted Rs. 43.79 crores out of Rs. 9000 crores, where as under the Gadgil formula the state's entitlement would have been Rs. 400 crores, "additional union assistance for the plan, likely proceeds from the consignment tax, and to the extent possible through better collection of taxes and economies of expenditure on our part".

The budget estimates and the revised estimates for 1989-90 and the budget proposed for 1990-91 are presented in the table below : TAMIL NADU BUDGET, 1990-91.

ABSTRACT

Items	1989-90 Budget Estimate	1989-90 Revised Estimate	1990-91 Budget Estimate
	(RUPEES IN CRORES)		
I Consolidated fund			
Revenue Receipts	3,845.74	4,044.24	4,397.46
Expenditure met from Revenue	4,134.23	4,562.80	4,814.09
Surplus or Deficit on Revenue Account	(—)288.49	(—)518.56	(—)416.63
Capital Receipts	1,026.14	1,488.22	1,773.59
Expenditure met from Capital including loans & Advances (net)	985.39	1,339.997	1,764.27
Deficit or Surplus on Capital Account	(+)40.75	(+)108.25	(+)9.32
Total Consolidated Fund (net)	(—)247.74	(—)410.31	(—)407.31
II Contingency Fund (net)	...	...	...
III Public Account Net	(+)98.07	(+)261.62	(+)57.95
Total Transactions (I+II+III)	(—)149.67	(—)148.69	(—)349.36
Opening Balance	(—)175.40	(—)12.05*	(—)160.74
Closing Balance	(—)325.07	(—)160.74	(—)510.10**

***Note** : Taking into account the adjusted cash balance with Reserve Bank of India the closing cash balance was Rs. (—)91.36 crores.

After taking into account the various Additional Resource Mobilisation measures the net deficit will be Rs. 268.10 crores.

The tax proposals which will yield an additional Rs. 62 crores in 1990-91 are : a) multi fibre sales tax replaced by single point system, with residency single point tax rate at 8 per cent : b) deemed assessment procedure introduced to benefit 40,000 small traders with annual turnover of Rs. 5 lakhs : c) total sales tax exemption given to sugarcane for human consumption and 10 country drugs: d) the rate cut for i) tractor parts from 9 per cent to 4 per cent, ii) bricks from 8 per cent to 4 per cent, iii) tiles from 5 per cent to 4 per cent, iv) handpumps from 8 per cent to 4 per cent, v) chillies, tamarind, turmeric, corriander, pepper and soapnut from 8 per cent to 6 per cent, vi) animal drawn vehicle tyres from 8 per cent to 4 per cent : e) tax revision and increases : i) purchase tax on petroleum products from 4 to 5 per cent, ii) wheat products from 2 to 4 per cent, iii) dressed hides and skins on par with raw hides and skins 2 per cent, iv) country liquor 25 per cent, v) electronics from 2 to 4 per cent, vi) TV from 2 per cent to 4 per cent f) surcharge on sales tax revision : i) Madras Corporation 15 per cent, ii) Madurai Coimbatore and Special graded municipalities from 10 to 12 paise, iii) other municipalities town panchayats and townships from 8 to 10 per cent : g) motor vehicle tax on goods carriages rationalised : h) tax on stage carriage raised by Rs. 30 per cent per quarter : i) tax on omnibus raised from Rs. 500 per cent per quarter to Rs. 2000 : j) revised tax for private service vehicles and k) measures to prevent stamp duty evasion. Among the major concessions proposed are : i) full waiver of sales tax dues for 5 years upto value of total capital investment in SIPCOT complexes in Cuddalore, Pudukottai, Manamadurai and in most backward taluks to be selected : ii) reduction of electricity tariff for pumpsets of 7.5 horse power and 10 h.p. from Rs. 75 to Rs. 50 per h.p. (benefiting 15 lakh farmers): iii) reintroduction of selection grade and special grade scales of pay to senior level employees : iv) medical allowance of Rs. 15 a month to teachers and teacher pensioners. On the non tax receipts, an additional Rs. 180 crore will be realised as a result of modification in the prohibition policy, providing for the public sector producing low price liquor. Legislation is to be introduced to invalidate all benami transfers between 1 January 1958 and April 6, 1960 to defeat land ceiling law. The Annual Plan for 1989-90 was approved for Rs. 1360 crores, with the actuals above Rs. 1377 crores, making the VII Plan expenditure Rs. 6225 crores against the original approved Rs. 5750 crores. The VIII Plan has been proposed for Rs. 8500 to Rs. 9000 crores. For the year 1990-91, the approved plan of Rs. 1450 crores will cover : (see last issue) a) increased outlay of Rs. 160.29 crores for agriculture, with special emphasis on paddy yield and productivity as the state is deficit by upto 5 lakh tonnes of paddy. Hence the Union's special food production programme in 9 districts, the increased supply of certified paddy seeds, the World Bank aided integrated agricultural development project, the DANIDA assisted dry land farming areas, the various price incentives and electricity tariff subsidies for farmers are emphasised: b) promote forestry through a state Forestry and Wild Life Research Institute at Coimbatore, the second phase of social forestry (Rs. 16.13 crores) and reafforestation of the denuded Nilgiris and Palni hills are provided : c) in animal husbandry, Rs. 3.91 crores has been made for the Veterinary and Animal Science University, sheep development in 6 districts

with the aid of EEC and in the 13 district dairy project are referred to : d) in fisheries, 5000 acres out of the 37,000 acres brackish water prawn culture is to be developed, a fishing harbour at Chinnamutau and fishermen's housing are provided : e) sericulture is being developed in 10 districts with the help of the World Bank : f) in rural development Rs. 50 crores this year out of the Plan outlay of Rs. 250 crores for filling in gaps in rural drinking water, roads, school building, health sub centres, child welfare centres, and minor irrigation works upkeep are provided : g) in irrigation 3 projects are to be executed along with the second phase of the Periyar-Vaigai project and modernisation of Cauvery Mettur tanks : h) for power Rs. 455 crores are provided for the 420 MW (the first 2 units) North Madras thermal, Rs. 135 crores for an additional 420 MW unit at Tuticorin plus a turbine Project at Basin Bridge and Rs. 155 crores for transmission and distribution : the Union government is being urged to speed the approval of the IV mini cut at Neyveli : i) a number of public sector projects, TAMIN and Tamil Nadu Newspaper which have been making losses are being rehabilitated and are expected to make profits from 1990, the Union is being urged to approve the export oriented naphtha cracker unit at Manali, and the sales tax exemption for 5 years for units in the 3 SIPCOT complexes as earlier referred to : j) small scale industries are being exempted from pollution control and the expeditious handling of their requests and documents are ensured : on handlooms, a Rs. 1.5 crore scheme for modernisation, the handloom weavers savings and servicing scheme for 1.48 lakh handloom weavers, their insurance cover, housing and provision of reasonably priced yarn along with rehabilitation of the 18 co-operative spinning mills, all of which except one are making losses are noted : k) on roads, villages with a population of 1000 and more will be covered by link roads, (Rs. 10 crores), for municipal areas Rs. 12.91 crores are provided for road works, 100 small bridges in various locations are to be constructed (Rs. 5 crores) — the total outlay on roads increased to Rs. 187 crores for the year : l) on education, a total provision of Rs. 1050 crores is made to cover the 439 habitations each with a population of more than 500 without a primary school within 1 km with a single teacher school, to approve 1200 secondary grade teachers, repair of primary school buildings, IITs (Rs. 3.24 crores) and for a new university in Tirunelveli to be called Mannonmaniam Sundaram University : m) provisions are also to be made for i) Tamil development, ii) for family welfare (Rs. 60.71 crores) and a new scheme for accidents and emergency services, iii) drinking water supply to the remaining 4418 habitations by May 1990, the speeding of Telugu Ganga project, iv) the Tamil Nadu Housing Board's 20,000 houses to be built during the year (Rs. 117 crores), v) the urban development project in Madras and 9 other cities with World Bank aid, vi) the nutritious meal scheme which serves 85 lakh children will have Rs. 195 crores, vii) Rs. 90.53 crores for ST & SC house sites, hostels, training and production subsidies, viii) Rs. 30.70 crores for village of BCs ond MBCs, ix) on employment, 10,000 Makkal Nalan Paniyalargal who have passed +2 will be given employment in Corporation, Muncipalities and town panchayats in addition to 25,000 who have studied upto X standard who are now being trained for employment in welfare activities : the provision for selection grade and special grade for

government employees as earlier referred to as was with medical allowance for teacher and pensioners. The state budget for 1990-91 thus is modest and sound document whose proposals also follow the recommendations of the (state) Planning Commission. Its provision to rationalise and simplify the sales tax system is to be welcomed. The need for raising the electricity tariff for agriculturists and industrialists has, however, not been faced. Similarly all means of raising resources, through higher irrigation charges, state transport fares etc. have not been fully tapped. Now that the government is entering the 2nd of its 5 year tenure, this is the time to make the hard decisions to meet the resource scarcity of the state and the country.

At the conclusion of the general debate, the chief minister announced the following modifications to his proposals : i) single point tax on food articles and beverages sold in hotels reducing from 8 per cent to 5 per cent : ii) lower tax rate on aluminium utensils and brass and copper utensils, reducing food products and hotel food articles : iii) taxes on stitched item other than ready mades will be 3 per cent and HOPE/ Polythelene woven sacks 2 per cent : iv) sago units in the cooperatives in Dharmapuri and Salem districts taxed at 4 per cent instead of 5 per cent for non cooperative units : v) tax on electronic items reduced from 4 per cent to 3 per cent : vi) DA for government servants from 1 January 1990 at union rates and selection and special grades to employers and teachers : vii) colour TV sets for 1000 panchayats : viii) solatium to poor families on the death of breadwinner increased from Rs. 2000 to Rs. 3000 and issue of permits liberalised : ix) for school students upto standard VIII free travel between home and school and 50 per cent student travel concession for all bus journeys : freedom fighters to travel free with the restriction of mileage. These proposals will add to the government expenditure Rs. 88.25 crores.

Supplementary Bills

The legislative assembly gave approval to the final supplementary estimates for 1989-90 of Rs. 654.01 crores on Revenue Account and Rs. 959.45 crores on capital account, Rs. 815.09 crores of which is to repay RBI's ways and means advances to the state, Rs. 15 crores for production incentives for farmers, Rs. 2.49 crores for seeds, Rs. 2.25 crores for pesticides, Rs. 1.25 crores for the new Tamil Nadu Veterinary and Animal Science University, Rs. 20.68 crores for reclaims of co-operative weaver societies, Rs. 87 crores for food subsidy to TN Civil Supplies Corporation, Rs. 15 crores for the Telugu Ganga project cost, Rs. 3.69 crores for consumers effluent treatment plant for tanneries at Vaniyambadi, Ambur, Pernambut, Ranipet, Tiruchirapalli and Dindigul, Rs. 2 crores for interest fee sales tax loan and Rs. 2.39 crores for plant relief work.

Planning Commission

During March/April there were nine meetings of the Planning Commission, at which the introduction to the 8th Plan was discussed and finalised and all the 10 main chapters were reviewed and approved. Only the resources remain to be discussed and this awaits the Union Planning Commission appraisal of the national resource picture and its evaluation of the state's resources which have been placed at Rs. 8500 crores to Rs. 9000 crores. This last

item will be decided in the next fortnight after which the Rs. 9000 crores VIII Plan for the state will be established.

Climate and Prices

The climate in March and April was dry and increasingly warm. There were some welcome showers in the South, in Salem, Thanjavur and Tirunelveli on three occasions which helped the water problem in those areas and the summer crops. Madras and Chingleput had two short periods of rains, but the intense heat during the two months has aggravated the drinking water problem and has increased the drawal of underground water, lowering sensibly the water table. On prices, CSO's monthly abstract for statistics is still that for September 1989, the price index — for industrial workers, agricultural workers and that for intercity are as reported in the last issue of the Bulletin.

Power

The power situation in the state during March and April was normal continuing the situation reported in the last issue with all power cuts withdrawn except the 20 per cent demand cut. At the end of March the fourth unit of the Mettur thermal plant was synchronised. With this, and that of the 11 MW wind farm project at Kayathar and Kuppandal' the 8 MW lower Bhavani micro hydel project, the Tamil Nadu Electricity Board reports that it will be exceeding the VII Plan target of 1416 MW by 14 MW resulting in relatively satisfactory position. But the Central Electricity Authority warms that by the end of the VIII Plan (1994-95) the state will face a deficit of 11.7 per cent in energy requirements and 25.6 per cent in peak load requirements. This is also the State Planning Commission's estimates, and to narrow the gap it has proposed a number of schemes calling for the investment of Rs. 5000 crores which will augment the generating capacity by 2200 MW in the state sector and 700 MW in the union sector - the projects being Tuticorin Thermal expansion 420 MW, North Madras Thermal 630 MW, the micro Vaigai hydel unit 30 MW, Basin Bridge gas turbine 20 MW, Narimanam gas turbine 10 MW, Cauvery gas based 300 MW and 100 MW from wind mills. This last which is a Tamil Nadu Energy Development Agency (TEDA) project will cost Rs. 200 crores. Further, wind mills to produce 50 MW at Chidambaram and Nellai Kattabomman districts have been presented to the World Bank for assistance. An action plan to rehabilitate and bring to full production the two damaged units of the 470 MW Madras Atomic Power Plant is also reported. A crash programme to install 3500 biogas plants in the Salem district will among other matters meet also the energy needs of the district. TEDA reports that it is formulating a programme to give a subsidy of Rs. 20,000 to energy audit industries as a means of conserving energy in the industrial field and as a further means of reducing the gap. On the financing side, the government in March reviewed the electricity charges for certain catagories of HT consumers to meet the rising operational costs. Also the state government announced in the Assembly that an agreement has been reached with the Union government on a royalty payment to the state at Rs. 30 crores for the lignite being mined at Neyveli.

The power situation in the country in March/April was becoming increasingly

difficult in some regions and states. UP faced a shortage of 35 per cent of the needed supply, with peaking capacity shortage at 32.3 per cent. Its PLF has been fluctuating between 31 to 50 per cent with heavy transmission and distribution line losses. In AP there was a serious power crisis during this period due to low power generation at the Ramagundam, Kottagundam and Vijayawada plants. They all face a serious coal shortage. Despite a heavy cut of 40 to 60 per cent on HT users, power availability fell to 1700 MW, of which 1400 MW had to be given to farmers, leaving only a small 300 MW for industry and domestic consumers. In Kerala the power shortage has led the government to endorse an AEC proposal to locate one of the nuclear power plants in the state, which has given rise to a sharp controversy. While the government supports the proposal, the chairman of the state committee for Science and Technology has raised sharply the question of safety aspect. With the discovery of large lignite reserves in Tamil Nadu and Pondicherry and the brightening propects of a southern gas grid, there are other alternatives which must also be explored. The National Thermal Power Corporation (NTPC) has drawn up a corporate plan to generate an additional 10,000 MW new generation capacity during the VIII Plan, of which 4249 MW will be gas based projects. The National Hydel Power Corporation which has attained 106.1 per cent capacity use and generated 3433 million units in 1989-90, will be taking up 6 new projects in the VIII Plan aggregating 2400 MW, calling for an investment of Rs. 9300 crores. The projects which have been cleared are the Japanese-Talchar plant in Orissa, the Rangit project in Sikkim and those in UP, HP and J&K. In this connection with the power projects in the VIII Plan, it is reported that the government is actively considering allowing the private sector to operate power projects on their own or with State Electricity Board. It is proposed that the private sector will be exempted from getting MRTP clearance for setting up power plant. This association of the private sector in power generation is needed and will be a step forward. There are questions of the power tariff now under consideration. The Union has asked state governments to draw up an action plan to liquidate their overdues to NTPC within 18 months. This is particularly serious with regard to UP, Tamil Nadu, Bihar and West Bengal. This will be facilitated by the proposal to give SEBs power from NTPC at marginally lower rates under the two part power tariff system proposed by the Bureau of Industrial Costs and Prices in place of the present flat rates. An arbitration board is also suggested to settle disputes relating to power sharing and tariffs on interstate transfers.

Water

There were 2 meetings in April between the chief ministers of Tamil Nadu and Karnataka and one meeting with the chief ministers of these states, Kerala and Pondicherry with the union minister of water on the Cauvery waters — all of which ended in a deadlock between the positions of Tamil Nadu and Karnataka. The Tamil Nadu Assembly has unanimously passed a resolution that there should be no more talks on cauvery as it is time wasting and that the dispute should be referred to an Administrative Tribunal. Karnataka opposes this proposal and wants negotiations to continue. The Cauvery delta farmers had moved the

supreme court on this issue and wanted their sufferings to be relieved by referring the dispute to an administrative tribunal. The supreme court gave the Union government till April 24 to come to a decision on the matter and on April 24 after hearing the union government and the Tamil Nadu and Karnataka governments decided that it would give its decision on May 4. It is to be hoped that this long standing dispute which is now over 2 decades old will be settled one way or another so that the delta farmers can decide on their cropping pattern. The National Water Resources Council has recommended an inter state council or standing committee to resolve inter states water dispute. The relevance of this proposal to the cauvery dispute is not known. The Union government has accepted this recommendation and has set up a standing committee comprised of union water resources minister (Chairman), ministers for agriculture, energy, urban development, environment and forests, science and technology with water resources secretary as member secretary. The committee will consider all water disputes referred by states, whose concerned chief minister will be a special invitee. On the other major inter-state water scheme, the chief ministers of Tamil Nadu and Andhra Pradesh (later in consultation with those of Maharashtra and Karnataka) have agreed to speed up the constuction of the Krishna waters to Madras so that by the beginning of 1993 12 tmc ft of Krishna water (after deducting transmission losses of 3 tmc ft) will flow into Madras city, to meet the water starved needs of the city. In this connection in mid April, a Rs. 504.46 crores metro water scheme was inaugurated and designed to provide transmission treatment and arrange the distribution network for the Krishna water and to carry out waste water management works. It will improve the existing water storage system for Madras city to prepare it to receive Krishna waters. The scheme will be funded by HUDCO (Rs. 125 crores), LIC (Rs. 50 crores) and the World Bank (Rs. 300 crores). The World Bank has agreed to the state using the Rs. 85 crores served on earlier loans (because of the depreciation of the Rupee). This will be used in 6 water supplying projects including the Manapparai and Pollaur scheme (Rs. 9.75 crores), Pudukottai (Rs. 19.33 crores), Tiruvannamalai (Rs. 9.57 crores) and Sankarankoil and Alangulam (Rs. 10.46 crores). The state government has also set up two bodies to deal with the state's water problem. In one body, drawn up by TWAD, MPs, MLAs and chairman of Panchayat and municipalities will discuss the water problem with field enquiries to find ways and means of meeting the drinking water shortage in the state. This is a good way to involve the people and other elected representatives in the analysis and solution of the problem. Only the member should not adopt a possessive attitude, limiting themselves to getting solutions only to their own constituency. The second body headed by the chairman of Metro water is to study the scope and feasibility of non conventional sources of water supply to meet the requirements of Madras. In particular desalination process and recycling of waste water are to be probed, with the expert engineers and scientists from IIT and the universities.

Housing

About 12000 houses are to be built in the state under the 'hut into house' scheme in 1990-91. The Union has sanctioned Rs. 150 crores for the scheme. The local bodies are to implement this scheme. Under JRY 40,000 SC and ST families in the state have

been provided with houses being 95 per cent of the target for 1989-90. For this year 1990-91, Rs. 63.5 crores are being used for building houses for below the poverty line families.

Transport

Madras port in mid April had a second floating dry dock added to its facilities. The 2 dry docks are of invaluable help to the 400 vessels merchant navy which face the usual problem of ageing and where if the costs are kept low, the provision of repair facilities to the 40-50 vessels which are over a decade old will make them viable. Time is on the side of the dry docks. The Madras Port Trust also reports that it has drawn up a Rs. 437 crore scheme for the VIII Plan, which will be financed to the extent of 50 per cent from internal resources. The main emphasis in the scheme is the deepening of Bharati dock and augmenting the capacity of container terminal, also badly needed. The government reports that of the 15 Transport Corporations, only 3 recorded marginal profits during 1989-90. The Thiruvalluvar Corporation lost the most at Rs. 317 crores followed by Pallavan at Rs. 297 crores. The total loss was Rs. 13.25 crores.

Foodgrains

The Union government has increased the monthly allotment of rice from 60,000 to 75,000 tonnes from April to relieve the strain on the PDS supply of rice to ration card holders. Further the decision of the Union government to ensure the smooth flow of foodgrains from producing areas like Punjab, AP etc. to the needy areas and processing mills will help the foodgrain supply position of states in the south like Tamil Nadu, Kerala and Karnataka.

Finances

The city has applied once more (the previous request was in 1987) to the Union for a grant of Rs. 100 crores in connection with Madras city's tricentenary for building a major international conference facility. This is needed but what is even more urgent is the Rs. 75.71 crores scheme to improve the city's roads and the laying of new ones which require Rs. 300 crores, calling for special grants from the union. In order to increase its financial resources, the government has decided to manufacture and distribute low priced country liquor. This would also, it is hoped, prevent or drastically reduce the consumption of poor quality (sometimes poisonous) illicit liquor by the poor. The permit system which has not been observed is now formally dropped. All this may be against the principle of prohibition but has the practical positive effects of meeting the state's growing financial needs and reducing the various evasions now under way. The Union reports that the state has touched an all time high in small savings mobilisation, having reached Rs. 239.5 crores by February 28, 1990, which is an effect of the direct contact with income tax assessees launched by the Directorate of *Small Savings*. The target for the year is Rs. 400 crores and the response of temple, small savings, NRIs, gift coupons has been positive. This is another important financial resource of the state.

National

Union Budget 1990-91

The Finance minister presented the Union Budget for 1990-91, which in sum is set fourth in the table below:

	1989-90 Budget	1998-90 Revised	1990-91 Budget
		(in crores of rupees)	
Revenue Receipts	52,630	52,254	57,938
Capital Receipts	22,109	23,692	29,391
Total Receipts	74,739	75,739	87,329
Total Expenditure	82,076	87,695	94,535
Capital Expenditure	22,434	23,006	23,565
Revenue Deficit	7,012*	12,436*	13,032
Overall Deficit	7,337	11,750	7,206
Increase in net RBI Credit to Central Government //	7,337	14,300	7,206 ///

// Including other variations in Reserve Bank of India's credit to Central Government.

/// Not independently estimated

* Include transfer of Rs. 2,300 crores of Oil Coordination Committee surplus from public account.

The table shows that in 1989-90 Revenue receipts declined from Rs. 52,630 crores in the budget estimates to Rs. 52,254 crores in the revised estimates due to the fall in the excise tax revenue accruing to the Union but including the transfer of Rs. 2300 crores from the Oil Coordination Committees (see Vol. XIX p162). Revenue expenditure on the other hand increased sharply from Rs. 59,642 crores in the budget to Rs. 64,690 crores in the revised estimates, increasing the revenue deficit from Rs. 7102 crores in the budget to Rs. 12,436 crores in the revised estimate. Capital expenditure increased from Rs. 22,434 crores in the budget to Rs. 23,006 crores in the revised estimates, giving a surplus of Rs. 636 crores in the revised estimate. But the overall deficit rose from the budgeted Rs. 7377 crores to Rs. 11,750 crores in the revised estimate. This increased deficit is due to a) Rs. 2223 crores increase in subsidies, b) Rs. 1500 crores increase in defence and c) Rs. 710 crores increase in interest payments — all non plan non development items. (The Finance Minister informed Parliament that the deficit was Rs. 13,790 crores on December 1). The net RBI credit loan as at the end of 1989-90 (not the average for the year) also is seen to increase sharply from the budgeted Rs. 7337 crores to Rs. 14,300 crores in the revised estimates. On the operation of the 1989-90 budget, the finance minister called attention to : i) the pressure on prices

and the need to control inflation, ii) the balance of payments problems which calls for increase in "net exports", iii) the fiscal imbalance seen in the high revenue and overall deficit which, he states, is the root cause of the problem of inflation and balance of payments, iv) the need to contain expenditure growth and counter rampant tax evasion and black money creation, which calls for measures to tighten and punish offenders as well as providing inducements to bring black money into the national savings and production stream, including the problems posed by the gold control act, v) the problem of unemployment, where according to the latest NSS survey the number of unemployed increased from 8 million in 1983 to 12 million in 1987-88 plus the mass of underemployed, vi) foster the growth of agriculture specially in low yield farming areas, and the lack of an Agricultural Policy (Resolution), vii) the increase of Rs. 5620 crores in the revised revenue expenditure, of which Rs. 4958 crores is non plan (and only Rs. 662 crores as plan), of which Rs. 15,000 crores was the (whooping) increase in defence outlay, Rs. 950 crores for increased fertiliser subsidy, Rs. 468 crores as additional export subsidy, Rs. 710 crores additionally as interest payments and Rs. 320 crores as relief to Bhopal gas victims. The 1990-91 budget provisions envisage i) an increase in revenue receipts to Rs. 57,938 due to the increased tax revenue of Rs. 46,294 crores resulting from a) the changes in direct taxes which will result in an increase of Rs. 800 crores from the corporation tax and a decline of Rs. 250 crores from the personal income tax (giving a net increase of Rs. 550 crores) as a result of 1) revising upward the income tax exemption limit from Rs. 18000 to Rs. 22000 per annum, 2) withdrawing the investment allowance and invesment deposit scheme in order to close the tax evasion of the corporate sector and decrease the capital intensity of the corporate sector, the foreign exchange earnings of the companies being permitted to be deducted for the computation of the corporate tax, and the corporate tax being reduced by 10 per cent, 3) lower rates of income tax of 20 per cent extended from Rs. 25,000 to Rs. 30,000 4) 8 per cent surcharge to continue but for taxable income raised to Rs. 75000 from Rs. 50000, 4) tax rebate of 20 per cent of savings in PF, life insurance, NSC, with a maximum of Rs. 10,000, butfor authors, musicians, actors and sportsman of Rs. 14000 6) limit of savings incentives under 80 CCA raised from Rs. 30000 to Rs. 40000, with a deduction upto Rs. 10000 deductable for income for investment in equity linked savings, schemes 7) Rs. 6000 deduction from total taxable income for parents of physically handicapped to cover medical expenses, 8) deduction in respect of foreign income of authors, playwrites, artists, musicians, actors, sportsman increased from 25 to 50 per cent of income or 75 per cent of the foreign exchange brought into India, 9) tax rates for widely held domestic companies fixed at 40 per cent, 10) tax deduction for setting up new industries raised from 25 to 30 per cent, 11) dividends received by companies from other companies exempted to the full extent to which they themselves declare dividends during the relevant period, 12) exemption level of small scale industry raised from Rs. 10000 to Rs. 15000 and their taxes lowered, 13) substitution of the present gift tax on donors by a donee - based graduated tax, aimed at combating tax evasion and black money generation, with basic

exemption of Rs. 20000 per year, 20 per cent tax on gifts received between Rs. 20000 to Rs. 50000 30 per cent between Rs. 50000, to Rs. 2 lakhs, 40 per cent tax above Rs. 2 lakhs, and Rs. 1 lakh gift exempted for marriage ; b) changes in indirect taxes which will result in an increase revenue of Rs. 390 crores from excise and Rs. 835 crores from customs through i) rationalising import duty rates and basic and auxiliary duty rate from 0 to 125 per cent, 2) concessional import duty of 70 per cent on pesticides and 60 per cent on pesticide intermediates, 3) total excise duty exemption of refined rape seed oil and mustard oil, 4) excise on coffee reduced to Rs. 50 a quintal and on imported prawn feed to 25 per cent, 5) reduced prices on life saving drugs and formulations, 6) total excise exemption of goods clearance of small scale industries raised from Rs. 15 lakhs to Rs 20 lakhs revenue loss of Rs. 67 crores), 7) imported capital goods upto a specified value limit given concessional import duty of 25 per cent, 8) 5 per cent excise duty reduction on indigenous capital goods (revenue loss of Rs. 60 crores), 9) concession at import duty of 40 per cent on specified insruments and equipments for quality upgradation and control, 10) full excise exemption of feature films (to help combat video privacy), 11) additional excise on cigarettes at 15 to 75 paise per packet (revenue yield Rs. 131 crores), 12) duty on Pan Masala (yield Rs. 6 crores), 13) duty on cocoa, jams and ice creams, (yield Rs. 26 crores), 14) increased duty on micro ovens, washing machines, audio system, VCRs and VCPs and cooking range, 15) excise on motor cars up from 35 to 40 per cent (yield additional Rs. 75 crores), 16) increased excise one refrigerators, air conditioners and gas compressors (yield Rs. 40 croros) 17) excise on stainless steel items raised by Rs. 500 a tonne and iron and steel items Rs, 100 a tonne (yield Rs. 104 crores) 18) basic customs duty an aluminium ingots raised to Rs. 35000 a tonne (to discourse imports). 19) excise on PVC used in leather cloth up from Rs. 15000 to Rs. 20000 a tonne (yield Rs. 17.5 crores), 20) countervailing variety duty (on bases of excise duty) on all imported goods (yield Rs. 60 crores), 21) uniform customs duty of 250 per cent for excess baggage, 22) free allowance for passenger from abroad increased from Rs. 1250 to Rs. 2000, 23) price of motor spirit raised by Rs. 1.25 per litre, HSD by 54 paise per litre and aviation fuel by Rs. 1320.18 kilo litre, import duty on crude oil increased from Rs. 1060 to Rs. 1500 a tonne (yield Rs. 836 crores) and 24) tariff on post cards up from 40 paise to 60 paise, inland lettes from 50 paise to 75 paise and on envelops of Rs. 1 for every 20 grams (yield Rs. 207 crores). b) The debt relief scheme to small farmers and artisans who have borrowed upto Rs. 10000 crores will comprise : i) relief to poor farmers, artisans and weavers who have taken bank loans upto Rs. 10000 from public sector and regional rural banks owing all over dues upto 2 October 1989), ii) there will be no limit on the size of the borrowers land holdings, iii) wilful defaulters who had the capacity to repay loans but did not do so are excluded, iv) state governments which wish to introduce similar schemes in respect of loans from cooperative credit institutions will receive help from the Union government. For this scheme Rs. 1000 crores is provided. The government explains this provision by stating that while the total bank loans outstanding in the rural sector amount to Rs. 14000 crores,

these involved in the Rs. 10,000 waiver are only Rs. 2842 crores of which Rs. 1100 crores are loans taken from the nationalised and regional rural banks. The remaining Rs. 1742 crores are loans from the state cooperative and other banks. This is then a further modification of the original scheme. c) The formula for comptuing costs of production for agricultural crops is changed to include i) valuation of labour including family labour on the basis of the statutory minimum wages, 2) remuneration for entrepreneurial and managerial efforts of the farmer, and 3) adjustment of procurement/support prices to take account of rise in input cost. d) all non plan expenditures of 1990-91 are increased from Rs. 59,220 crores in 1989-90 to Rs. 64,515 crores in 1990-91 → defence expenditure by Rs. 1250 crores from Rs. 14500 crores (revised) to Rs. 15760 crores, interest payments from Rs. 17710 crores to Rs. 20850 crores, subsidies from Rs. 8454 crores budgeted to Rs. 10,624 crores including subsidies for exports from Rs. 1621 crores to Rs. 2316 crores, administration from Rs. 33,470.00 to Rs. 38,939.93 crores taking just the general services. In percentage terms the rate of growth of non plan expenditure, however, is 8.7 per cent compared to the 21.5 per cent increase in 1989-90). e) The Union Plan for 1990-91 is raised to Rs. 39,329 crores which is an increase of 14.2 per cent over the 1989-90 budget estimates and 10 per cent over the revised estimate. Of this Rs. 17,344 crores will be provided as budgetary support and Rs. 21,985 crores by the public sector through their internal resources and borrowing : The Plan involves : i) For agriculture and rural development the budgetary support for the plan has been increased from 44 per cent in 1989-90 to 49 per cent in 1990-91, ii) On employment, a new employment guarantee scheme is proposed, restrictedin the first instance to drought prone areas and pockets which suffer from acute unemployment. For the Jawahar Rozgar Yojana (employment schemes for urban areas) Rs. 120 crores are provided, down from Rs. 150 crores in the revised estimates, Rs. 2100 crores for rural employment out of Rs. 3827.46 crores for rural development. iii) An outlay of Rs. 905 crores has been proposed for the department of agriculture +17.5 per cent), Rs. 155 crores agricultural research and education (+41 per cent), iv) Rs. 3115 crores is provided for the department of rural development, v) Rs. 320 crores for SC & ST welfare schemes. vi) A 25 per cent increase for the National Literacy Mission to intensify the programme to eradicate illiteracy ; within the Rs. 865 crores for the department of education to modernise technical education and fund the thrust areas in science and technology. vii) Health and family welfare will have Rs. 950 crores. viii) Urban development has a jump from Rs. 89 crores in 1989-90 to Rs. 272 crores in 1990-91, viii) outlay for petroleum and natural gas is increased by 18.6 per cent, for railways 12.4 per cent, and for power 110 per cent. f) The recommendations of the IX Finance Commission involves the transfer of Rs. 773 crores to the states. The breakdown of the Annual Plan 1990-91 is setforth at the end. Further, Union assistance to the plans of the states and UTs will be Rs. 12,848 crores, including the Plan revenue grants recommended by the Finance Commission, as against Rs. 10450 crores in 1989-90. g) Other important elements in the governments budget statement are : i) A nominal provision of Rs. 100 crores has been made for DA increase. ii) The capital receipts will have Rs. 1400

crores from the oil coordination committee. iii) External assistance will increase by Rs. 605 crores. iv) The internal and extra budgetary resources of public enterprises will rise to Rs. 21985 (+25.8 per cent). v) The small scale industry package of direct and indirect tax concessions referred to earlier will also be supplemented by the revival of the scheme of subsidy to units coming up in rural and drought affected areas. Also the tax exemption limit of partnership firms which has been raised to Rs. 15000 and the low tax rates will benefit them. vi) The Gold Control Act has been abolished. vii) A 10 per cent tax on inland air travel is introduced, replacing an existing 10 per cent inland air travel tax levied on the basic fare — yield Rs. 15 crores. viii) To promote environmental protection and pollution control concessional customs duty of 40 per cent is to be levied on specified air and water pollution control equipment and excise on specified pollution control equipment is reduced from 15 per cent to 5 per cent. ix) To upgrade airport facilities, import duty on navigational, communication, air traffic control and landing equipment is reduced to 25 per cent (loss Rs 7.5 crores). x) To promote telecommunications in rural areas, excise on specified telecommunications equipment is reduced from 20 to 15 per cent (loss Rs. 15 crores). xi) Levies on textiles at the fabric stage are rationalised and the excise duty on man made fibres and yarn and their intermediates are increased as one means of protecting the handloom sector where tax evasion is widely practiced at the processing stage. Hence the excise duty is to be transferred from the fabrics to yarns and in the case of man made fibres, the entire duty is by way of additional excise in lieu on sales tax on which the states are to be consulted. h) On this basis, the 1990-91 deficit has been established at Rs. 7206 crores — the result of total expenditure being Rs. 94,535 crores and total receipts being Rs. 87,329 crores, as seen in the table earlier.

Thc budget has the usual strengths and weaknesses of all budget documents. In terms of raising of tax revenues it is a soft budget as it raises only, Rs. 1790 crores for financing the entire government operations — Plan development, employment, debt relief et al to which the government is committed. But to this should be added the hike in petrol, diesel and aviation fuel prices which will bring in Rs. 836 crores, the postal hike Rs. 207 crores in a full year and Rs. 170 crores this year — all of which add up to Rs. 2833 crores. The Railway Budget, to be analysed later, has raised Rs. 892 crores through the rise in fares and rates, the telecom tariff has raised Rs. 600 crores — making a grand total of Rs. 43225 crores. However, in terms of funds available for financing the union governments activities the tax revenues are inadequate. A second comment is in regard to the states share in the revenue. The IX Finance Commission recommnedations has meant a transfer of Rs. 773 crores to the states. But it is interesting to note that of the Rs. 1790 crores raised from taxes, only Rs. 3 crores accrues to the states, the balance of Rs. 1787 crores being for the union government. (Though their share of excise is Rs. 173 crores, their loss of Rs. 170 crores in the income tax revenue, results in the small residue of Rs. 3 crores). This means that tax relief on IT is at the cost solely of the states. This makes decentralization difficult. A third issue relates to the programme of debt relief to the farmers. Further

details are needed on it, but the scheme has been narrowed and constricted only to those having over dues upto Rs. 10000 crores instead of applying it to Rs. 14000 crores for the entire rural banking sector. The provision of Rs. 1000 crores for this much restricted scheme makes little sense. A fourth comment is with regard to employment. Here the direct contribution is the new employment guarantee scheme limited drought prone areas and pockets where unemployment is heavy. This seems far away from the programme and promises of the right to work. However the results of increase in budget support to rural and agricultural development plan allotment from 44 to 49 per cent, the small industry policy package including the reversal of recent trends and increasing the items reserved for it, the provisions made to promote the handloom and cotton cloth sector may all contribute further to the employment objective. A limitation on these budget incentives for the small scale sector is that it does nothing to help cure sickness which characterise 30 per cent of the 17 lakh units in this modern small scales sector and provide a support system that will enable its entrepreneurial base to expand. A fifth issue relates to the opening comment of the minister "the first task of the new government was to contain the rise in prices". The promotion of savings through various incentives given, the reduction expected in the consumption of 'luxury items' through the higher excise and customs taxes imposed on them might indirectly lead to the price containment. But given the high liquidity in the economy and the cascading effect of the taxes on petroleum and transportation generally, the control of inflation is not self evident. And this is the sixth issue, there is no evidence of cutting the demand side, namely the non plan expenditures. in fact as noted earlier, every item of non plan expenditure is on the increase and this will feed inflation. Seventh, there is general agreement that investment in non durable consumer goods should be restricted and above all that industry should be based on import substitution and should not be import intensive. Looking at the customs duty concessions on equipment and machinery, one is not sure that this will be attained. Eighth, against the pledge in the Economic Survey that the base of tax collection will be widened, the tax net is being contracted by 1 million income tax payers getting out of the tax net. This is also confirmed by the ninth final comment. The budget deficit and the deficit financing is still high at over Rs. 7200 crores. Actually on March 16, 1990, on the eve of the presentation of the budget, the net RBI credit to government was Rs. 17102 crores compared to Rs. 8776 crores in 1981. It is not known why the finance minister put the budgetary deficit at Rs. 13,790 crores on December 1, 1989, when presenting the budget. Even then the budgeted deficit of Rs. 720 crores will create reserve money which will fuel inflation. The deficit is computed at around Rs. 9200 crores at 1989-90 tax rates. Thus the increased tax effort has brought about a reduction of around Rs. 2000 crores in the deficit. (At April end the estimate of tax revenues as reported at Rs. 360 crores less which may have to be added to the deficit). The deficit could have been cut to less than half of what is budgeted, if a) administration had been reduced by not filling posts which fall vacant, b) subsidies on fertilisers and exports were cut so that they meet the needs of the mass of the people, and c) defence expences have not been jacked up so high. Now what is

needed is to keep the deficit to below this figure and relate it to what the aggregate deficit financing is to be set forth for the VIII Plan. For this, the recommendation of the IX Finance Commission that the deficit should be at a figure to be agreed by the Union government and RBI and any excess above it should be first discussed and approved by Parliament has not been accepted in that form by the government. Instead a 6 month review later changed to a 4 month review of the budget status and a statutory limit on the budget deficit on the basis of Article 295 of the constitution is proposed by the Finance Minister. If the startling limitation of the deficit is adopted by the Parliament, then any excess expenditure will have to be met either by cutting expenditure or by fresh taxes. This together with the proposal for a Long Term Fiscal Policy, is important and should be welcomed. Thus the budget is probbably what could have been proposed under tax constrains of the government : it is not the hard budget that all were expecting it which would follow from trying to meet fully the government's programme and pledges. In relation to the programme pledges, the right to work and employment generation, of debt relief to small and marginal farmers, of relying more on direct than on indirect taxes, of promoting a decentralised structure, the budget has not been able to adhere to these pledges and is inclined in the direction of easy options and a soft budget.

Central Plan Outlay

(In crores of rupees)

	1989-90 Budget Estimates	1989-90 Revised Estimates	1990-91 Budget Estimates
Agriculture	770	812	905
Agricultural research and education	110	114	155
Rural Development	2200	3083	3115
Fertilisers	495	441	661
Civil aviation	473	445	521
Commerce	63	62	81
Supply	3	2	4
Communications	2	2	3
Postal Services	55	40	60
Telecommunication services	2956	2979	3107
Coal	2834	2803	2926
Power	4197	4728	4613

(in crores of rupees)

	1989-90 Budget Estimates	1989-90 Revised Estimates	1990-91 Budget Estimates
Non conventional sources of energy	115	115	125
Environment and forest	202	190	232
Economic Affairs	585	904	674
Expenditure	503	3	3
Revenue	2	—	—
Food	63	60	61
Civil supplies	14	12	19
Food processing industries	26	20	32
Health	240	235	275
Family welfare	653	638	675
Home Affairs	34	28	9
Education	832	785	865
Youth affairs & sports	64	74	69
Art & culture	58	56	67
Women & child development	261	261	330
Industrial Development	342	409	382
Public Enterprises	690	564	711
Information & broadcasting	398	412	424
Labour	35	33	85
Personnel, public grievance and pensions	6	4	6
Petroleum and natural gas	3448	369	4091
Chemical & petrochemicals	468	518	418
Planning	43	50	49
Statistics	7	7	15
Science and technology research	94	96	104
Biotechnology	55	52	62
Steel	2316	2416	2735
Mines	415	427	652
Surface transport	1302	1162	1866
Textiles	212	140	293
Tourism	69	68	83
Urban development	89	230	272
Water resources	214	202	232
Welfare	300	370	364
Atomic energy	1115	1013	1231
Electronics	130	114	182
Ocean development	24	24	35
Space	298	211	323
Railways	4450	4450	5000
Total	34446	35713	39329

Railway Budget

The presentation of the railway budget for 1990-91 to Parliament this year was preceded by an important innovation, which was the report on the status of the Railways, the problems it faces, the pressures it is under for newlines, and above all a clear statement of the options before it, the government and the public in such matters as whether the priority should be for new lines or replacement of worn out tracks and outdated wagons, whether there should be a choice between electrical or diesel operated locomotives, whether the resources needed by the railways over and above its own income should all come from the budget or from the issue of bond, whether there should be increase in first class AC or second class seater and sleeper coaches, whether freight traffic should get precedence over passenger traffic or vice versa, etc. If this report had been really understood and discussed by the public and various bodies who met in seminars on it called by the Railways, the budget presented for 1990-91 would not come as a surprise. The only regret was that the report was issued only a fortnight before the budget presentation and participants had less than 24 hours to read and understand the important issues raised. 1 (This is because the new government is only about 2 months old.) The budget presented begins with the record of the budget and the operation during 1980-90. Against the projected surplus for the year of Rs. 28 crores, the actual was Rs. 21.67 crores, after paying in full Rs. 715.66 crores as dividend obligation to the general revenues. The originating loading was targeted for the year at 316 million tonnes, but due to lower loading of foodgrains and coal was actually 311 million tonnes. The passenger traffic for the first 10 months of 1989-90 showed an increase of 2 per cent in number of passengers and 5.3 per cent in passenger kilometers. The financial prospects for 1989-90, original and revised and those for 1989-91 are presented in the table below.

1989-90	Budget 1990-91	Revised 1989-90	Budget 1990-91
(A) Gross traffic receipt	10,633.00	10,732.00	12,060.00
(B) Ordinary working expenses	7,373.00	7,447.00	8,241.00
(C) Appropriation to Depreciation Reserve Fund	1,715.00	1,715.00	1,950.00
(D) Appropriation to Pension Fund	700.00	728.00	900.00
(E) Total working expenses (B + (C) + (D)	9,788.00	9,890.00	11,091.00
(F) Net traffic receipts (A) — (F)	845.00	842.00	969.00
(G) Net miscellaneous receipts	100.00	113.00	149.00
(H) Net railway revenue (F)+(G)	945.00	955.00	1,118.00
(I) Dividend payment to general revenues	805.00	815.00	932.00
(J) Surplus/shortfall (H)—(I) Development Fund	+140.00	+140.00	+186.00
(K) Appropriation to Railway	140.00	140.00	186.00
(L) Payment of deferred dividend liability	—	—	—
(M) Operating ratio	92.1%	92.1%	91.8%
(N) Percentage of net revenue before payment of dividend to general revenues on the capital-at-charge.	3.3%	6.5%	6.9%

The data for the current year in the table is based on the expectation that the budget target of Rs. 7,611 crores for goods earnings will be maintained, passenger earnings will be about Rs. 87 crores above the budgeted Rs. 2544 crores, meeting certain unexpected expenses under ordinary working expenses like arrears of house rent allowances, CCA, productivity linked bonus, increased electricity tariffs etc. The computerised system on which some questions were raised in the status paper is reported to have improved the quality of services and is being extended to Bombay-Calcutta and Bombay-Madras: improvements of passenger services and amenities are also recorded. During the year which was also the terminal year of the VIII Plan, rehabilitation of assets as well as the modernisation which was possible were the hall mark. There are now 27 new lines projects involving 2829 kms and Rs. 1695 crores, to which should be added the recommendation of the Planning Commission's Committee for 2902 km of new iines and 2306 km of gauge conversion which will cost Rs. 4400 crores. The criteria for new lines set forth in the budget presentation are a) project oriented lines, b) lines relieving congestion, c) lines demanded by strategic considerations and d) developmental lines and to overcome the paucity of resources, non traditional sources of finances including the financial participation of states are suggested. For 1990-91 the budget proposes : i) to raise Rs. 892 crores as additional revenue, which as a result of concessions announced in Parliament is reduced to Rs. 847 crores through a) 10 per cent increase in freight rates yielding Rs. 470 crores and for parcels and luggage yielding Rs. 17 crores, and a 17 per cent increase in passenger fares for upper classes, namely I class AC, AC sleeper class, I Class and AC chair yielding Rs. 405 crores. There is to be a lower freight increase of 7 per cent during the slack season, April 1 to September 30 : b) the fares of second class mail / express will increase in a graded manner — Re. 1 at the lowest to Rs. 20 for distances beyond 1400 kms, and a similar small graded increase for ordinary second class from 50 paise to Rs. 2 modified under the announced concession to no increase in minimum fares upto 25 kms and lower rates of interest for successive 1000 kms : c) the season ticket rates, which are heavily subsidised, and on which the status paper calls attention to the annual loss of Rs. 122 crores per year incurred, is being varyingly increased from Rs. 16 to Rs. 48, for I class reduces under the concessions to Rs, 12 to Rs. 36 and from Rs. 4 to Rs. 12 for II class, reduced to Rs. 3 to Rs. 9 : the cost of platform tickets now to Rs. 2 but remained at Rs. 1.50 : d) similarly sleeper charges increases by Rs. 5 for each slab : e) there will be no hike in freight rates for wage goods - food grains, pulses, salt, edible oils, vegetable, fruits, sugar and gur, ii) to pay Rs. 932 crores to the general exchequer as dividend resulting in a closing surplus of Rs. 186 crores which will be used to execute words like passenger and staff amenities and operating improvements chargeable to the Development Fund : iii) to raise gross traffic receipts of Rs. 11,168 crores (at existing fares and freight rates to which the Rs. 892 crores additional revenue from increased rates should be added) on the basis of 325 million tonnes of revenue earnings traffic and 3 per cent growth in passenger traffic : iv) Rs. 824 crores as ordinary working expenses which provides for annual increments, DA,

increases in power tariff, the lease rental to IRFC, the contribution to Depreciation Reserve Fund raised to Rs. 1950 crores and pension fund to Rs. 900 crores, making a total working expenses of Rs. 11091 crores, leaving net traffic receipts at Rs. 77 crores to which Rs. 149 crores as miscellaneous receipts should be added, making the net revenue Rs. 226 crores as Rs. 932 crores has to be paid as dividend, the difference of Rs. 706 crores will be paid out of additional revenue through the various increases proposed amounting to Rs. 892 crores, leaving a surplus of Rs. 186 crores : v) the phasing out of I class coaches, as one of the options indicated in the status report, all new coaches being II class general or sleeper or AC, which will increase the number of seats available to passengers being 15000 in the next 2 years : vi) the introduction of 12 new trains and increasing and/or extending the trains on 11 routes : vii) some social welfare provision such as raising the compensation for death in train accidents to Rs. 2 lakhs, use of earthern pots in catering, of handloom material in train, offices and guest house and growing trees, vegetables and fruits on land alongside tracks - all aimed at increasing employment : Viii) the annual plan for the railways at Rs. 5000 crores (against the previous year's Rs. 4450 crores), involving a budget of support of Rs. 1420 crores the balance to be found internally including borrowing Rs. 1170 crores from IRFC, the Rs. 186 crores surplus and the Rs, 1950 crores earmarked as depreciation reserve fund. To those who studied the status report issued on March 1, the railway budget comes as no surprise as stated earlier. Even so, the increases in fares and freights just about covers the budget short fall of Rs. 706 crores, yielding a small surplus of Rs. 186 crores. Second, the bddget marks an important step to doing away gradually with the general budget subsidising the railway budget as seen in rise in fares to compensate for the heavy losses on passenger traffic and the increased appropriations, Deprecation Reserve Fund and Pension Fund. Third, the effort to contribute to the wage goods sector, to employment generation and to move funds to the rural/agriculture sector are moves in the right direction. Fourth, subject to further details being available from the budget papers, the expediting of priority projects, namely, track renewals (VIII Plan in starting with 12,000 kms of outworn tracks), and wagons replacement (there are 5600 overaged and 3400 steam locos), over gauge renewals, electrification and the various new projects is sound and should be strictly adhered to. The major query which arises is whether all is being done to increase productivity - at least in line with the increase in emoluments - and to ensure a rise in efficiency. The question arises from the fact that the operating ratio still sticks at around 92 per cent and productivity does not seem to be rising.

Economic Survey 1989-90

The record of the economy for the current year 1989-90, according to the Economic Survey, is not satifactory, because agricultural production will show only a marginal increase over that of the previous year and industrial growth will slow down, the GDP growth for 1989-90 is likely to be 4 to 4.5 per cent compared to the 1988-89 record of 10.4 per cent and the average 5.4 per cent during the first 4 years of the VII Plan. Agricultural production will increase marginally, with the output of food-grains, cotton and

sugarcane exceeding that of the previous year, while oil seeds, jute and tea show declines. The agricultural sector has developed a measure of resilience demonstrated during the 1987-88 drought and has responded to the good weather in the following 2 years with increased yields. On this basis foodgrain stocks are being built up and imports of food-grain, edible oils and other essential commodities sharply reduced. In industry, there has been a slow down, the index of industrial production showing for April-November a rise of 5.2 per cent compared to 9.4 per cent for the same period in the previous year. This slow down is due to manufactures which recorded a growth rate of only 3.4 per cent during the 8 month period compared to the 10.2 per cent during the corresponding period of the previous year. Mining performed well at 8.4 per cent (compared to the previous year's 6.8 per cent) and electricity even better at 12.1 per cent (compared to the previous year's 7.5 per cent). During the first 3 quarters, of the key infrastructure sectors, electricity generation, crude, petroleum and petroleum products, coal and lignite, shipping and communications performed well while steel, cement, and fertilisers performed poorly, the Railways recording only modest improvement. Within the power sector, both hydel and thermal did well with improved PLF. The deceleration in growth was recorded in a few key industries, like sugar, steel, cement, fertilisers, cotton and cotton yarn. According to use — based classification, basic industries, consumer durables and intermediates recorded lower growth rates, infact intermediates recorded 2.2 per cent growth during April-November 1989 compared to 13.2 per cent in that period in 1988, capital goods and consumer non durables recording good growth rate. The poor industrial record was in some cases due to specific supply side factors as in steel, sugar and fertilisers, while in others it was due to the too rapid increase in production compared to the growth in demand, leading to increased capacities. There is the reference to one important development — the spurt in capital issues in April-December 1989 to Rs. 10,713.58 crores compared to about half that at Rs. 5344.23 crores in the corresponding period in 1988. Should this heavy capitalisation be allowed when the industries growth is lagging, amounting to a recession ? The price situation has been under pressure from the start of the year, despite a satisfactory monsoon and a second year's bumper crop. The whole sale price index has upto February 12, 1990 increased by 7 per cent compared to 5 per cent during the previous year's corresponding period. The annual rate of inflation works out to 7.7 per cent compared to the previous year,s 5.3 per cent. The Consumer Price Index, however, records a rise of 5.3 per cent upto January 1990 giving an annual rate of inflation of 5.4 per cent compared to the 7.8 per cent rise and the annual inflation rate of 8.8 per cent of the previous year. The inflationary pressure is due to a) supply and demand imbalance in the case of some essential commodities like tea, sugar, edible oils and textiles, and b) fiscal imbalances leading to higher liquidity growth and the spill over of liquidity from previous years. To damp down inflation, a) RBI tightened credit controls selectively and has mopped up some of the excess liquidity, b) the government, on the supply side maintained supply of food-grains and essential commodities through PDS and in some cases like edible oils, pulses and sugar additional imports were

undertaken, and c) market intervention undertaken to keep prices down. The survey traces the current macro economic problems to fiscal imbalances, seen in the secular pressure on government expenditures and the pattern of financing which has deviated substantially from the VII Plan and the long term fiscal policy perspectives. The Union budget deficit has fluctuated at 2 per cent of GDP in recent years. The budget deficit for 1989-90 which was set at Rs. 7,337 crores (1.7 per cent of GDP) has not prevented, RBI credit to government running well above that limit for the whole year. These large deficits have been met by borrowing which has increased the union's debt and increased interest charges which have increased from 3.6 per cent of total expenditure in 1980-81 to 10.1 per cent in 1989-90. There is a steady decline in the proportion of expenditure on capital formation from over 40 per cent in mid 80s to 34.7 per cent in 1989-90, while the transfer payments from the union to the states have increased from 21 per cent to 40 per cent during the period. Among the transfer payments, the highest increase has been on interest payments which increased from 10 per cent to 17.7 per cent during the period. The share of consumption expenditures has been around 21.23 per cent and defence expenditure around 70 per cent of governments consumption expenditures. These fiscal imbalances which did not result from any let up in resource mobilisation but from increased government expenditures and were financed by larger market borrowings and budget deficit, have resulted in serious liquidity growth. During the year upto January 26, 1990 M_3 has grown by 14.9 per cent compared to the previous year's 14.5 per cent, but net RBI credit to government increased by 26.2 per cent compared to the previous year's 18 per cent. RBI has tried to meet this not by restraining government expenditure but by raising the terms refinancing bank credit and agricultural credit. The fiscal imbalance also resulted in the country's balance of payments being under pressure. Upto December 1989, exports recorded an increase of 38.3 per cent and impors 10.7 per cent. The trade deficit of Rs. 5,518 crores in the first 9 months marked a decline of 18.4 per cent. But net invisibles will not show any improvement because of the trend in net private transfers, slow growth of tourist trade and steady increase in interest payments on past borrowings. The strain on the balance of payments became very severe from 1988 - 89 to a) the declining self sufficiency in production / consumption of crude and its products, b) the steady erosion of surpluses in the invisible account in financing the trade deficit, c) the unfavourable concessional loans climate, d) the bunching of debt service payments including IMF loan repayments, the external debt in 1989 amounting to Rs. 69,000 crores with a debt servicing ratio of 23 per cent, and e) of the secular phenomenon of large fiscal deficits. The result is that the foreign exchange reserves fell to Rs. 5531 crores on January 31, 1990. As far as problems / prospects for the next year is concerned : a) the large overhang of liquidity and rapid growth of money supply during the present decade and the resulting intensification of the inflationary pressure cannot be easily combatted because with the limited supply of food stocks and foreign exchange reserve there is not much room to manouver : b) the supply side being thus blocked, it is the demand side that will provide the solution and that

means special attention to correcting rapidly and fully the underlying fiscal imbalance : c) this correction requires i) tight budgeting, ii) control over government expenditure, iii) improvement and widening of the tax base and its yield, iv) a much better financial performance of the public sector enterprises. This means expenditures on subsidies must be carefully and strictly reviewed : d) the imbalances in the external account which will continue in the VIII Plan, calling for a sizable and sustained increase in export volumes and values, and for this the policies necessary must be put in practice : e) tax and trade policies must be such as to discourage import intensive industrialisation and foster efficient import subsitution : f) a broad based agricultural development which will be central to poverty alleviation through price incentives, effective utilisation of agricultural inputs and correction of inter regional yield and crop disparities : g) against the acceleration of growth in the 80s which has not been matched by corresponding acceleration in employment, policies and programmes must be devised to speed up growth of productive employment opportunities in all sectors along with a labour intensive pattern of agricultural and industrial development — all of which will require a substantial expansion in infrastrucutre — energy, transportation, irrigation and telecommunication, where some of the investments will have to be capital intensive : and h) in a fiscal policy which will correct the stagnation in savings rates and the dissavings in the government sector. In sum, the survey concludes that the critical tasks at this stage are to design an employment oriented development strategy that combines growth with equity, a trade policy that aims at rapid export growth so as to reduce the external payments deficit and a fiscal policy that increases savings and contains inflationary pressure. The Economic Survey continues the tradition of a frank appraisal of the economy, the change in government enabling it to be brutal in some places and speak quite frankly and openly on some of the economy's weakness — like high industrial growth with little or no employment. The pragmatic conclusion on arresting unbridled growth in government revenue expenditure, zero based budgeting, abandoning high cost and capital intensive current schemes, the weeding out of inefficient public sector units and increased surplus from public undertakings, cutting back on import intensive industrialisation and broadening the tax base, (in addition to increasing tax rates) — all these as government and national policies must now be implemented in operating the budget and the Annual Plan.

Plan

The two major events in March/April were a) the finalisation of the 1990-91 Plan and b) continued consideration of the Approach to the VIII Plan. The Annual Plan for the Union for 1990-91, is established at Rs. 39,329 crores which is a 14.2 per cent increase, with a small 2.2 per cent increase in budgetary support at Rs. 17,344 crores and a smaller increase at 1.6 per cent of external assistance of Rs. 28322 crores. The Annual Plan for the Union and the States is around Rs. 65,000 crores (not all states have finalised their plans) which is a 14 per cent increase. The Union assistance to states plans shows a decline relative to the level of state plan outlay). The major part of additional resources to the Annual Plan comes from the public sector profits and savings. The outlay for agriculture

is Rs. 900 crores against the requested Rs. 1250 crores, with the major part (Rs. 532.67) allocated to crops oriented programmes. This small outlay may be the reason why Rs. 6127.93 crores as agricultural credit for the plan is recommended. The petroleum sector has largest rise at 7.1 per cent, with coal, railways and telecommunications registering moderate increases. For the anti-poverty and employment programmes Rs. 3115 crores are proposed against the previous year's Rs. 2200 crores. There are no economic growth targets or sectoral targets for power, coal, oil and other sectors. In this connection the facile conclusions that despite relatively static saving and capital formation rates in the VII Plan, the economy registered a slightly faster growth rate of 4.5 per cent because of the improved capital output ratio is not empirically borne out and does not underlie the structure of the 1990-91 Annual Plan which continues to rely on the normal savings rate contributed mainly by the household sector. The plan provides for 5 centres of integrated rural energy planning (IREF). On the continuing discussion of the VIII Plan approach, the financial Express of March 3 publishes the Draft Approach Paper said to be under discussion. Its main implications are a sharp cut in deficit financing, and reduction in external and internal borrowings, heavy taxation of imported goods, increase in tax revenues, surpluses in public enterprises, and export earnings and a review of the subsidy component which has risen from Rs, 2262 crores in 1982-83 Rs. 10,677 in 1989-90 and a perspective Rs, 10,624 crores in 1990-91. (The major subsidy items are food increasing from Rs. 711 crores to Rs. 2200 crores, fertilisers from Rs. 603 crores to Rs. 4000 crores, exports Rs. 2316 crores). To reduce inequalities it is proposed in addition to progressive taxation of incomes, cutting conspicuous consumption, an overall incomes policy, land reforms, PDS. Development policy is to be reoriented to give priority to meeting the immediate needs of the poor and the development and operation of a new growth model that would set right imbalances in regional development, per capital income, industrial growth and an employment oriented production pulls. Some 15 issues are highlighted in the approach to the VII Plan such as : approach to rural development will not be department based but derived from integrated local and planning involving transfer of responsibility for planning and implementation along with the needed funds to local democratic institutions ; Union and state governments to be facilitative, guides and information dessiminators and not planners ; simplifications of procedures to ensure that resources flow to where they are needed more ; women given a central place in the strategy ; agricultural development planning besides extending and improving irrigation, water management, technology transfer and input supply to be based on conservation of natural resources, especially soil, water and bio mass ; emphasis on more equitable access to resources and inputs, raising dry farming productivity, diversification and employment sensitivity ; promotion of labour intensive manufacture of mass consumer goods ; conservation and improved efficiency of capital in industry ; reviewing large investment and long term project proposals to economise and phase them and use public financial institutions more actively to guide and direct the private corporate sector ; ensure strictest economy in government expenditures and in imports ; avoidance of growth

rates centred planning, setting prudent and realistic goals — qualitative and quantitative, and reorient programmes to improve efficiency in all possible ways. There is some work being done in the Planning Commission to modify the Gadgil formula to remove the distortion caused by the 30 per cent union grants being based on the population cum poverty ratios. Further the transfer back to the state of the "centrally sponsored projects" is recommended by the commission but actively opposed by the ministries.

Prices

Inflation measured by the wholesale price index was on the rise in February and March. For February the rate of inflation was 0.5 per cent, the WPI index standing at 168.4 on February 14. At that point, the annual rate of inflation was 8.02 per cent, the major contribution being the prices of primary articles. During March the rate of inflation was 1.6 per cent with the WPI index at 170.3 on March 31. The annual rate of inflation at that point was 8.4 per cent, with primary articles contributing the major part of the rise. In fact an analyses of the movement of wholesale prices over the 80s shows prices of food articles rising faster than that of manufactured goods with the gap being the highest at 15 points in mid 1988 and again the prices of essential food articles rising faster than non essential food articles. CPI also records a parallel but lower annual increase of 5.4 and 6 per cent for February and March. In March a fresh DA instalment was announced costing the union government Rs. 343 crores in 1990-91. Other factors feeding inflation are the rise in procurement prices of cereals and their issue prices, the massive increase in the demand for sugar and tea out running their supply and the poor and slow public distribution system. In order to contain the liquidity of the economy, RBI in April announced the credit policy for the first half of 1990-91. It was noted that in 1989-90 M_3 increased by 19.4 per cent due to unprecedented expansion in net RBI credit to government in 1989-90 at Rs. 13,031 crores (21.7 per cent compared to the previous year's Rs. 7225 crores, 13.7 per cent). And so the policy announced was i) a rise in the statutory liquidity ratio from 38 to 38.5 per cent : 2) interest on bank cash balances with RBI to be paid on a two tier formula : 3) the scheme of graduated penalties on CRR short falls is liberalised : 4) SLR for NRI accounts is raised from 25 to 30 per cent : 5) to broaden the call money market, the limits for issue of certificate of deposits are extended from 1 per cent to 2 per cent and similarly to broaden the primary market the eligibility to float commercial paper is eased from Rs. 10 crores to Rs. 5 crores. There has been some slowing of the rates of growth of deposits from 19.2 per cent (Rs. 1,62,036 crores) in December 1989 to 14.3 per cent (Rs. 1,64,402 crores) in March 1990. The Prime Minister in a review of prices at April end has asked all ministries to contain price rise of essential commodities. All this is good and sound. But the major means of curbing the liquidity of the economy and reducing the inflationary pressure is by "expeditiously bringing down" the net RBI credit to government as the RBI annual report on Currency and Finance states. The RBI credit to government has also a deleterious effect on the balance of payments which will be referred to later. As of now (end of April) there

is no evidence of a reduction in RBI credit to government. The November 1989 issue of the RBI Bulletin reports on the replacement of the wholesale prices index numbers based on 1970-71 prices in vogue for 18 years by a new series based on 1981-82, as recommended by the Rangarajan working group. The new series has enlarged its coverage to 447 items (against 360) and has increased its price quotations to 2371 (1295 previously). The new series has been released from July 1989.

Stock Exchange and Union loans

The government has given more powers to the Securities and Exchange Board of India (SEBI), while issuing fresh guidelines for regulating merchant banking activity. The new guidelines are aimed at promoting the interest of subscribers and so regulates share and debenture issues of companies. The promoters have to make advance contributions before the public issue opens. There must be a minimum 90 per cent subscription against the entire issue to begin allotment. If the minimum limit is not reached, the entire subscription received will have to be refunded within 90 days, with a 15 per cent interest if refunds are delayed by more than 10 days. The regional stock exchanges should be in the know of the use of funds. Adequate disclosure should be made in prospectus, ads etc. Change in legislation is suggested by the chairman TDICI so that venture capital can be provided through equity and not only through loans. The Union government announced on March 9, three loans aggregating Rs. 934 crores taking the market borrowing for 1989-90 to Rs. 7400.28 crores, which is the amount set forth in that budget.

Finance Commission

The final report of the IX Finance Commission was presented to Parliament by government on the first day of the budget session, together with the government position on the Report which is one of accepting its recommendations as follows : 1) The Commission recommends continuing for the VIII Plan the states present share of 85 per cent of income tax, 45 per cent of Union excise duty and the recommendations concerning the grant in aid to cover non plan gap on revenue account and the grant in aid to cover part of deficits on plan revenue account. These estimates result in a transfer of Rs. 1,06,036.43 crores in the VIII Plan compared to transfer of Rs. 56,491 crores in the VII Plan. The VIII Plan transfers recommendations are based on the assumption that the union will be able to achieve a total of Rs. 4,66,502 crores as revenue receipts (compared to Rs. 2,49,419 crores in the VII Plan) and a target of Rs. 1,49,271 crores as Non Plan predevolution revenue surplus. 2) It has assessed on a normative basis the revenue and expenditure of the states, which while not affecting the overall share of the union and the states in divisable tax revenues as noted above, does alter inter state distribution of the shares accruing to the states. An assessment of the normative yardsticks used and how that has affected the shares of the rich, middle income and poor states shows that high income states (Maharashtra and Gujarat) have been favoured, middle/low income states (Kerala and Tamil Nadu) have suffered. In the interim report of the commission also, there was a distinct bias in favour of the rich states. The normative approach determined the 'needs' and 'capacities' of the states and the recommendations of the volume and pattern of

federal transfers for the VIII Plan. These normative estimates have been derived separately for tax and non tax revenues. A modified representative tax system approach is used to determine what a particular state would be able to raise as tax revenue if it exploits its tax bases to an average capacity. Therefore capacity figures have been derived from 1984-8 base year and projected to 1989-90. In regard to non tax revenues, actuals have been used for fees, and normative rates for dividends and interest received by government. On non plan revenue expenditures, the average behaviour has been taken as the norm : in the case of general services, the justifiable cost of providing an average standard of service is taken as the need ; in case of social and economic services, the justifiable costs of providing the existing level of service are taken as the needs and justifiable costs are based on the norm of an average, but with due allowance for what it calls "the cost disability factors". With regard to assets maintenance, engineering norms are applied in a graded scale, assuming that the full norm will be applied in the terminal year, 1994-95 : on election expenditures, estimates are used : social welfare expenditures are fixed on certain uniform levels to ensure inter state equality. The Commission states that it has applied the norms with equal rigidity to both the union and states, allowing for questions of inter state equity and the appointment of burdens and benefits among the tax payers of different states. On expenditures, for the union, the average cannot be taken as the norm as in the case of states because the union's services are different and so a broad judgement is used of the justifiability of the existing level of expenditure and the system of transfers which make the union exercise economy and restrain growth of its expenditures. The commission claims that the normative approach provides incentives to each government to raise more revenue than the norms for which it will not be penalised but will be if it raises less : On expenditure differences in standards of service among states due to differences in revenue capacity will be frozen because the needs will be reckoned according to norms. This brief summary of the normative approach of the commission shows that at every point, there are subjective judgements involved and used. The results in terms of the estimates of revenue resources and their shares as between states show degree of uneveness, which result from the subjective element in the application of the normative criteria. The percentage share in income tax and excise of each state and the resulting transfers recommended by the commission to the 25 states for the VIII Plan is set forth in the first table below and the plan revenue before and after devolution in the second table which follows :

It will be noted that Tamil Nadu's share of Rs. 6198.20 crores places it in the eighth position among the 25 states : 3) it has recommended several measures for achieving fiscal discipline, particularly to curb and ultimately to abolish (by 1995) the revenue deficits of both the union and the states. There is a recommendation to develop a convention to limit the deficit financing of the union government in any given year to an amount detailed in advance in consultation with RBI and if under any extraordinary circumstances the approved limit is exceeded, the excess proposed should be discussed and approved by Parliament. (Except for the last addition, this is a reiteration of the Sukhmoy Chakravarti committee report recommendation see Vol XVIII p579. The addition is also sound). The government has not commented on

States Shares of the Transfers (Rs. crores in last column)

	% share of I. T.	% share of Excise	Total
Andhra Pradesh	8.208	7.170	7239.22
Arunachal Pradesh	0.073	0.897	834.88
Assam	2.6311	3.810	3956.30
Bihar	12.418	11.028	11176.05
Goa	0.110	0.523	508.87
Gujarat	4.550	3.183	3713.43
Haryana	1.244	1.099	1194.81
Himachal Pradesh	0.595	1.943	1860.02
Jammu & Kashmir	0.695	3.548	3358.74
Karnataka	4.928	4.104	4063.27
Kerala	3.729	3.087	3447.89
Madhya Pradesh	7.164	7.224	7843.29
Maharashtra	11.886	5.185	6201.36
Manipur	0.171	1.174	1085.47
Meghalaya	0.208	0.891	821.89
Mizoram	0.073	1.109	1021.01
Nagaland	0.096	1.348	1244.30
Orissa	4.326	5.358	5523.04
Punjab	1.706	1.362	1674.13
Rajasthan	4.836	5.524	6526.62
Sikkim	0.030	0.260	252.18
Tamil Nadu	7.931	6.379	6198.20
Tripura	0.303	1.556	1433.92
Uttar Pradesh	14.657	15.638	17449.14
West Bengal	8.165	6.660	7409.40
Total	100.00	100.00	106036.43

Net Non-Plan Revenue 1990-95 : In Search of Aid

States	Net non-plan revenue position without devolution of taxes & duties	Net non Plan revenue surplus after devolution of taxes & duties	Net non Plan revenue deficit after devolution of taxes & duties
Andhra Pradesh	2286.25 (—)	4289.22	
Arunachal Pradesh	827.38 (—)		302.79
Assam	5329.89 (—)		560.32
Bihar	7095.38 (—)	2575.15	
Goa	505.12 (—)		166.58
Gujarat	563.26 (—)	3957.94	
Haryana	1374.00 (+)	2505.06	
Himachal Pradesh	1792.52 (—)		523.09
J & K	3300.44 (—)		1083.02
Karnataka	708.77 (+)	4670.79	
Kerala	2916.81 (—)	2.29	
Madhya Pradesh	5306.50 (—)	1227.98	
Maharashtra	5489.20 (+)	11525.56	
Manipur	1081.72 (—)		371.65
Meghalaya	814.39 (—)		256.18
Mizoram	1017.26 (—)		379.79
Nagaland	1240.55 (—)		458.39
Orissa	4792.29 (—)		528.48
Punjab	114.77 (—)	1400.45	
Rajasthan	5100.22 (—)		486.39
Sikkim	240.93 (—)		48.68
Tamil Nadu	1712.12 (—)	4296.04	
Tripura	1422.67 (—)	466.01	
Uttar Pradesh	14255.14 (—)		348.60
West Bengal	4678.98 (—)	1581.77	
Total	64001.33 (—)	38032.25	6016.35
	8135.23 (—)		

All figures in Rs. crores

Surplus (+) / Deficit (—)

this. It has recommended a series of measures to limit the growing burden of the public debt on the states which has grown to Rs. 89,461 crores, of which Rs. 56,051.92 crores are owing the union, and for the VIII Plan the repayment will be Rs. 15,28 59 crores the union, constituting 32 per cent of all fresh loans. The commission however ascribes the rapid rise in the states indebtedness to the financing of plan investments. These cover not only government sector investments but also departmental and non departmental works like irrigation works, state electricity boards, road transportation which perform poorly and result in little or negative returns, so that the servicing of these loans falls on the government budget. In 1989-90 repayment to the union will be 32 per cent of fresh loans. The report says that in lending money to the states, the union government is channeling a part of private sector savings for state government investment and so there have to be more productivity and repayment, so that the union government could recycle the repaid funds for future loans to the states. So write off and conversion are not recommended in general, as these will not produce the needed funds, and in rescheduling, inter state equity should be considered. To avoid growth of state's indebtedness under which the assets created out of the loans are depreciating, it recommends that RBI work a scheme under which the states will be required to maintain amortization funds to the extent considered necessary by the bank. This would promote greater flexibility for states in their, repayments. Against these considerations, the specific recommendation on lighting 70:30 formula for plan assistance, the grant position is to come in the form of a union loan and the balance by way of additional market borrowings : b) from 1990-91 the direct union loans for states plans to have a maturity of 20 years, with half the loans having a grace period of 5 years : c) the loans given to state on account of drought period during 1985-87 outstanding on March 31, 1989 to be written off (accepted by the Union government). Similar relief to Madhya Pradesh on gas relief and the special loans to Punjab during 1984-89 are recommended : d) outstanding state plan loans given during 1984-89 are to be rescheduled : e) the recommendation of passing on the entire IDA credit to the states carrying 6 per cent interest and repayment of 30 years, and in the case of World Bank loans, their being passed to the state in the ratio of 70 (loans) : and 30 (grants) : (not accepted by the union government as it wants to make an indepth analysis of this recommendation) : the total debt relief on all accounts to each state during 1990-95 on the commission's recommendation will be Rs. 975.62 crores. 5) The Commission has recommended the creation of a Calamity Relief fund for each state, at the rate of 75 per cent by the Union in the form of non plan grant (coming out of the devolution to the state) and 25 per cent by the state from its own resources, the total for all states being Rs. 806 crores each year which will replace the present ad hoc schemes of financing relief expenditure. The government has accepted this recommendation in principle, with the condition that the arrangement for the custody and operation of the Fund would be separately worked out in consultation with the Comptroller and Auditor General and the RBI. 6) It has recommended a review of the policy

of subsidies as a means of lowering revenue expenditure. 7) To bring down the growth of public debt, it has recommended discontinuing of budget support for investments in public sector enterprises except for key infrastructure areas like railways, where financing through public sector bonds is suggested. As for states, the commission has suggested closing down all loss making public enterprises, confining such enterprises to key sectors. There is a hint at privatisation of transport and power which raise many questions. 8) The merger of additional excise duties with the basic excise duties is not recommended as all states are against it. 9) The commission calling attention to a 3.6 per cent increase in government employment resulting in "a bourgeoning increase of salary bills", recommends that there should be no increase in employment in the government sector during the VIII Plan. 10) The Commission has made some suggestion for continuing of the commission's work through studies and projects in different subjects relevant to the work of the commission through a strengthened division and an advisory committee. At this stage, it may be tentatively stated that the finance commission, which started with many queries and doubts about its terms of reference and membership not being established in consultation with the states and the very serious misgivings on the normative yardstick introduced for the first time in its terms of reference, has presented recommendations with which the Union government (on the whole) is in agreement particularly in regard to a) the immediate acceptance of the recommendations on the allocations to the union and the transfers to the states despite the reduction in capital receipts and the increase in capital expenditures of the union government, b) reducing and abolishing by 1995 the revenue deficit : c) the measures for fiscal discipline of the union government, d) the review of the subsidies area, e) the relief to the states with regard to their debt to the union government. The queries on the report relate to a) the nature and results of the normative criteria used. What the criteria are have been briefly summarised earlier and their use shows a very heavy subjective element which could have distorted the proposed inter state transfers and the usual over estimations of the growth of revenues and current revenue surpluses of the state ; b) despite the use of normative criteria, the financial relations between the union and the states continue seemingly unchanged but in reality are worsened. The states got 22.65 per cent of the total revenue receipts from the VIII Finance Commission for the VII Plan, and now the IX Finance Commission's recommendations give the states about the same, namely 22.74 per cent but to make this percentage comparable to the VII Plan, the plan grants should be excluded, which makes the state's share 20.8 per cent. This financial erosion for the states, which get less than one fifth of the total receipts, goes against all norms of and the case for decentralization on which there is general agreement, but which the commission's recommendations belie : c) The states will still be under rather strict fiscal discipline and will face an impossible situation unless the union also follows a similar discipline. For this, the convention suggested is not enough : If it is broken and reserve money created to fund union deficits, the states budgets will be upset by the resulting inflation : d) The Commission does not give adequate attention to the problem of reducing regional disparities : infact the reduction of the weightage given to the distance

factor will make backward regions and the poorer states more backward and poor : equally replacement of the poverty factor by the backwardness factor, has favoured states with large SC & ST populations : e) Finally the report and its recommendations as a whole show a rather heavy bias in favour of the union government, which the chairman has from the very beginning not tried to hide. Is there any other reason for all other union direct taxes, particularly the corporation tax, not being in the divisible pool and shared with the states and for the reduction of the effective share of its excise revenue to non deficit states from 40/47 per cent to 37.57 per cent ? Are the arguments against this in the report convincing?

Economy

In March/April, several contributions were made to the study of the state of the economy. The President in his address to Parliament (budget session) referred to : 1) the slowing of the growth of production in agriculture and in industry in 1989-90, with industrial growth being 4.2 per cent inthe first six months : 2) the budgetary situation determined during 1989-90, the budget deficit being Rs. 13,790 crores in December 1989 : 3) on the positive side, the management of the economy has heen given priority, rice procurement reaching 9.32 million tonnes, augmenting foodgrains stock to 11.67 million tonnes. Supplies of essential commodities are being increased through PDS and its functioning improved : 3) prices of essential commodities, rice, sugar, tea have shown a downward trend in the last 2 months but the pressure on prices continues despite the second year of good harvest : the balance of payments problem is a crisis situation and its resolution requires restoration of fiscal balance. The Planning Commission has been reconstructed and is working on the Approach to the VIII Plan which will be submitted to NDC for approval. Thrust of the Plan will be to ensure rapid growth with a special focus on the critical objectives of employment generation, alleviation of poverty and redressal of the imbalance between rural and urban areas. A key feature of the plan will be the structure and institutional changes to ensure decentralisation of planning and plan implementation. Sustained growth in rural incomes is a necessary condition of successful industrialisation and so government will pay special attention to the agricultural and rural sectors and their economic and social infrastructures. Increases in yield of major 9 crops especially in rainfed and dry areas and changes in the formula for computing costs of production to ensure remunerative prices to farmers will be backed by market support. A standing committee on agriculture including representatives of the farming community has been set up and together with the Panchayat raj system will enable the rural people to participate in planning and development. Workers in agriculture are unorganised and will be given fair wages and a larger share of the fruits of rural development. As part of this, some more land reform laws are to be placed in the IX schedule, government is introducing a scheme of debt relief for small farmers, landless labourers, artisans and weavers on loans upto Rs. 10,000 each. Industrial policy will be designed to serve the objectives of growth, expansion of production, employment and balanced regional development, along with growth of productivity and tecnological modernisation. Industry will be made more interna-

tionally competitive and spread to rural and backward areas. To further develop small industries local resources will be harnessed. A department of small scale industries and agro and rural industries has been set up. The importance of the public sector is stressed along with creating conditions for its efficient functioning and greater productivity. A white paper on the public sector is to be published. Science and technology import will be used for generating and sustaining employment and increasing rural productivity. Workers participation in management is to be ensured. The government will ensure for all citizens the right to work to enable them to earn their livelihood. The environment is to be protected and education is to be restructured, expanded and health facilities increased. CSO's quick estimates for 1988-89 of the economy shows that 1) GDP rose by 10.4 per cent (at Rs. 188,481 crores against the previous year's Rs. 170,716 crores at constant 1980-81 prices) and at current prices showing a rise of 18.5 per cent : 2) NNP rose by 11.1 per cent (Rs. 1,66,593 crores against the previous year's 1,49,967 crores), the higher than GDP growth rate being due to lower estimate of growth of capital consumption estimates: 3) The GDP increase is due to the 21.3 per cent increase in foodgrains production at 170.3 million tonnes (against the previous year's 140.4 million tonnes) : 4) the increase in rice was 24.3 per cent, wheat 16.9 per cent, athar 16.8 per cent, oil seeds 41.9 per cent, cotton 36.1 per cent, and in animal husbandry 4.1 per cent rise in value of output — all resulting in overall increase of 18.6 per cent in gross value added in agriculture against the previous year's 0.7 per cent : 5) all other industries except forestry, railways and storage recorded growth rates varying from 3.5 per cent in real terms to 12.4 per cent in banking and insurance : 6) per capita income rose by 9.0 per cent at Rs. 2082 crores against Rs. 1910 crores for the previous year : 7) private final consumption expenditure at current prices was 65.6 per cent of GDP at market prices (Rs. 2,56,495 crores) and Rs. 1,46,261 crores at constant prices : per capita expenditure was Rs 3206 crores at current prices and Rs. 1888 crores at constant prices against the previous year's Rs. 2835 crores and Rs. 1719 : the share of food items in total consumption showed a slight decline, while the share of clothing, furniture, furnishing, appliances and services showed a slight increase ; g) gross domestic saving in current prices was 211 per cent of GDP at Rs. 82,044 crores against 19.6 per cent at Rs. 65,309 crores of the previous year : the saving of the household sector went up significantly by 30.1 per cent from Rs. 52,733 crores in the previous year to Rs. 68,608 crores, the private corporate sector by 24.1 per cent from Rs. 5715 crores to Rs. 7090 crores, while the public sector showed a fall of —7.5 per cent from Rs. 68161 crores in 1987-88 to Rs. 6346 crores, due mainly to large negative saving of the government administration from — Rs. 5773 crores in the previous year to — Rs. 8702 crores: g) net domestic saving increased from the previous year's Rs. 31,433 crores to Rs. 42,589 crores, being 12.1 of NDP and market prices against the previous year's 10.5 per cent : this reflects the sharp rise in the household sector's net saving by 35.7 per cent from the previous year's Rs. 39,115 crores to Rs. 53,097 crores, the private sector's saving going up even more sharply by 78.7 per cent from the previous year's Rs. 399 crores to Rs. 713 crores, while the public sector showed a steep decline

from the previous years Rs. — 8081 crores to Rs. —11,221 crores, due to the large negative net saving of the government administration and the increase in fixed capital from the previous year's Rs. 14,942 crores to Rs. 17,567 crores: h) gross capital formation at current prices increased from the previous year's 211.7 per cent (Rs. 72,134 crores) to 23.9 per cent (Rs. 93, 544 crores) and at constant prices increased from the previous year's 20 percent (Rs.38,884 crores) to 21.8 per cent (Rs. 46,376 crores) ; the rate of net capital formation at current prices increased from the previous year's 12.8 per cent to 15.4 per cent and at constant prices from 11.6 per cent to 13.9 per cent. With gross capital formation at current prices, fixed capital formation increased by 18.9 per cent from the previous year's Rs. 67,451 crores to Rs. 80,198 crores, that of the public sector increasing by 14.1 per cent from the previous year's Rs. 35,021 crores to Rs. 39,948 crores. This encouraging record of the economy for 1988-89 has some serious negative features which include a) the negative public sector saving due to the growing dissaving of government administration ; b) the growing consumption of fixed capital by the public sector from Rs. 8.081 crores in 1987-88 to Rs. 11,221 crores in 1988-89 : c) the stock piling of inventories in the household sector which has doubled between the two years : d) the rates of saving and capital formation are lower than that of 1980-81 : e) the Rs. 2626 crores increase in consumption of fixed capital in the public sector, despite the 1988 50 per cent upward revision of rates of capital consumption by CSO, which reflect on public sector management and involves increase in replacement cost. The Department of Rural Development in its report for 1989-90 states that rural poverty ratio declined from 49 per cent in 1981 to 37 per cent in 1986, to 28.2 per cent in 1990 and will be 10 per cent in 1994-95. The poverty line is identified at an annual family income of Rs. 6400 though the cut off line for assistance to rural families is Rs. 4800. There are slightly different statistical data from CSO which in its 43rd round (1987-88 shows the poverty level declining from 48.3 per cent in 1987-88 to 37.4 per cent in 1983-84 and to 29.23 per cent in 1988, with declining shares of the family budget in both urban and rural areas for cereals and a rising share on milk and on non milk items. These trends are confirmed by the World Bank study on Indian poverty, employment and social services which states that real expenditures by the poorest rose and the proportion of the population below the poverty line fell during the 1970s and early 1980s. Poverty reduction has occured during a period of moderate growth rate and high population and labour force growth so that future higher growth of the economy which it is anticipating to attain will lead to faster decline in poverty. Poverty has not been but a dent on it has been made as the number of poor is still very large, they are concentrated in the eastern and central states, the poorest are causal labourers possessing no assets. Many factors like irrigated agriculture, credit provision, subsidies on land which contributed to poverty eradication in the 70s and early 80s as will be less effective in the next 10-15 years, because the former 3 factors are less effective now and so new strategies and instruments to combat poverty should be developed. This again will be difficult because of the lack of manoeure public finances where the anticipated expenditure growth will make it hard to

find large anti poverty proerammes, of agriculture being able to absorb only a falling share of labour force production due to technological and market constraints and of the employers' aversion to depending on casual wage workers who are on the increase. It points out that the ministry of agriculture's cost of cultivation data shows employment elasticities dropping in many states, the average employment elasticity falling from 0.77 for 1968-69 to 1978-79 to 0.51 for 1971-72 to 1983-84. It is felt that a reduction for agricultural labour in the coming decade will occur in Punjab, Haryana, UP, MP and Tamil Nadu which will affect adversely the landless wage dependents, migrant labour flows from Bihar, Orissa and East UP — which is worrisome and which calls for recasting the omnibus approach to anti poverty programmes to location specific plans along with allocation larger plan resources for them. But the World Bank points to Kerala which has lowest fertility rate, highest literacy rate and other sub social indication without having any industrial growth to talk of. This is a difficult case for the economist to explain. Supplementing the record on IRP recorded in the last issue, the report of the Department states that the fund utilisation programme was a success. Its detailed statistics are somewhat different from that of the Khusro report summarised in the last issue. The Department reports that according to official records 47 per cent of the assisted families belong to the destitute group (Rs. 1 to Rs. 2265 per year) and 50 per cent to the very poor group (Rs. 2265 to Rs. 3500 per year, while various surveys shows that 25 per cent belong to the destitute group, 46 per cent to the very very poor, 21 per cent to the very poor (Rs. 3501-Rs. 4800) and 5 per cent to the poor group (Rs. 4801 to Rs. 6400) and government's evaluation studies show that 25 per cent of the cases had no incremental incomes generated. Another study shows IRDP gains have not percolated to the lowest level since only 18.7 per cent have crossed the poverty line. For NREP, VII Plan outlay was Rs. 2487.47 crores and its problems are that states did not give it importance, no evaluation was made no statistical data built up, no proper planning or priority, or involvement of beneficiaries, and there was poor quality of food grains. The status of other programmes is similar, though in all cases financial allocations have hit the target which shows heavy leakage of funds. The merging of NREP & RLEGP is supported, it will make possible a holistic approach for providing jobs in education, health and women's care facilities, avoiding the poor missing out and rural chief and bureaucrats sharing the package. Some suggestions for improvements in the poverty alleviation programme include identification of beneficiaries on the basis of household data on land holding, provision of better quality assets, large scale expansion, rural banking, vigilance cells to monitor the programme and fight corruption, back up service for IRDP, avoidance of political interference, introducing passbook scheme to beneficiaries, who should be identified on a priority basis, and increased veterinary facilities in rural areas. The proposal of the Planning Commission to decentralise the programme to elected panchayats will lead to the rural elite swallowing of the funds. Instead the poor should be identified and formed into clubs to which funds should be (given directly with the help of the many voluntary organisations working in rural areas. In particular, women and children have not been helped, (as seen in the DWARCA's failure in the VI and VII Plan, when

in the VI Plan against the target of 2.7 lakh women only 52,170 were helped) on which basis Dr. Rath concludes that only 10 per cent of the beneficiaries have been helped to rise above the poverty line and not 40 per cent as claimed by the Planning Commission. Even these were raised above the annual income of Rs. 6400 only. The persistent inflation rate of 7·9 per cent will only help a family to touch the Rs. 6400 per year mark for a time before dropping down. So in addition to the merger, there should be alternate delivery systems which the new Planning Commission should develop. This frank and honest portrayal of the results of the poverty alleviation programmes — NREP, RLEGP, IRDP, DWARCA, TRYSEM, to date is bleak and discouraging but these truths need to be faced. The RBI's annual report on currency and finance for 1988-89 forecasts that the GDP growth in 1989-90 is likely to be 4.5 per cent primarily because of the good khariff record of 97 million tonnes of food prices, good rabi prospects of 77 million tonnes, resulting in attaining the target of 175 million tonnes, the record cotton crops of 115 million tonnes, oil seeds of 18.2 million tonnes as in the previous year as well as sugarcane at 206 million tonnes. But this good agriculture record goes along with a disturbing fall in gross capital formation (GCF) in agriculture. Unlike the 60s and 70s when GCF — that is investment in irrigation, livestock, farm equipment and machinery was rising, particularly between 1975-79, it has been falling since the late seventies, which will result in low level of agricultural production, with the terms of trade worsening as against agriculture and farmers. A study for the Gujarat agricultural commission showed that the index of overall prices received by the farmers rose from 72 in 1964-65 to 365 in 1986-87, the overall index of prices paid by them moved up from 78 in 1964 to 450 in 1986-1987. It was in the period 1978-79 to 1986-87 that the terms turned sharply against the farmers, the prices parity ratio falling to 85 in 1978-79, to 77 in 1983-84 and 73.5 in 1985-86. Thus the new government's decision to increase investment in agriculture and rural development to 50 per cent of plan and non plan spending is timely. The RBI annual report also contains 2 other grim warnings. One is on inflation. With the union government's budgetary deficit as on January 12, 1990 at Rs. 1406 crores, which is double the budgeted Rs. 7337 crores (even the capital account showing a deficit of Rs. 3225 crores compared to previous year's surplus of Rs. 3090 crores and the RBI credit to the government reported at Rs. 15,277 crores), it is not surprising that the growth of reserve money upto January 12 is 16.9 per cent (against the previous year's 13.4 per cent), which the report points out is resulting in the kind of 1 iquidity which will further spur inflation. The price rise is becoming generalised with sharp increases in the prices of tea, sugar, oil seeds and pulses. The other warning in the RBI report is on the balance of payments, despite the booming exports. In the first 9 months foreign exchanges reserves have fallen by Rs. 1297 crores compared to the previous year's fall of Rs. 1057 crores to Rs. 5793 crores, which is below what is needed to pay for 2 months imports. The Ministry of Railways published on March 1 a revealing status, report on the Railways, an improvement innovation, which sets forth 1) the capital structure of the railways, 2) the use of computers and other forms of technologg upgrading, 3) the choice between the demand for new

lines which total up over Rs. 30,000 crores and the replacement of outworn rail tracks, wagons and locomotives, 4) the choice between electrification and dieselisation, 5) the need for reimbursing the railways for fulfilling its social obligations, 6) the size of the Eighth Plan for the railways, 7) the conventional method of increasing its revenue versus some unorthodox means including financing by market loans and by state government, 8) whether railway budget should be delinked from the general budget etc. The Financial Express calls attention to the results of the 1987-88 NCAER survey which shows i) that consumer durables are used not by 100 million but 500 million people, ii) that the top ten per cent —80 million account for only half the consumption of consumer durables, and iii) that the bottom 60 per cent account for the purchase of a) 33 per cent of mechanical wrist watches, b) 22 per cent of B & W TVs, c) 25 per cent of sewing machines, d) 23 per cent of cassettes, e) 11 per cent of colour TVs, f) 13 per cent of mopeds and 8 per cent of motor cycles and that the rural consumers are as keen on consumer durables, accounting for purchase of 77 per cent of mechanical watches, 72 per cent of radios, 61 per cent of cassettes, 54 per cent of table fans, 45 per cent of motor cycles. This ad hoc extraction of data from a rather carefully computed report is misleading, is based on some distortion of the statistical data, according to the new Director General of NCAER, and certainly not lead to the conclusion that the mass of the people want and can afford the consumer durables because they have overnight become well to do. This is part of the view that poverty in the country is on the decline from 48.3 per cent of the population in 1977-78 to 37.4 per cent in 1983-84 and to 29.33 per cent in 1987-88 In evidence of this view, it is pointed out that the poor are over time spending less on food items and more on non food items. NSS data shows that in the late 50s, the lowest 25 per cent of the population on an average consumed 4.89 kg of rice per capita and 0.91 kg of wheat but by mid 70s changed to 4.60 kg of rice and 1.64 kg of wheat. This trend increased in the 80s. According to 44th round of NSS (July December 1988) the average monthly per capita expenditure in rural Haryana was Rs. 26.73 on cereals and Rs. 51.44 on milk and milk products, in Gujarat Rs. 33.58 and Rs. 33.88 and Rajasthan Rs. 35.39 and Rs. 40.74. According to a 1989 Planning Commission report food was 8.2 per cent of expenditure of the bottom 40 per cent of rural households in 1970-71 and non food items, clothing, food and consumer durables 18 per cent, in 1983 the food proportion fell to 75 per cent and non food items rose to 25 per cent, and that 61 per cent of all consumer durables were bought by the lower income group in 1986 However in a study by the Institute for Studies in Industrial Development, New Delhi it is shown that inflations major negative impact has been on the poor. The study uses the whole sale price index (its data being more comprehensive at the commodities level and available for a longer period than the consumer prices index) over an 18 year period 1971-72 to 1988-89) and price trends on 116 consumer products divided into a) food articles, b) consumer durables, c) other manufactured consumer products and d) textiles. With the exception of the last, textiles, all products are further classified on the basis of how essential they are and the income groups that use them. In food articles, for instance, whisky, beer, country licquor, cigarettes, bidis

and tinned milk fall in the non essential category, while pulses, bajra, onions, mustard oil etc. are essential and form part of the poor man's diet : in consumer durables, electric fans, utensils, sewing machines and cycles are viewed as the common man's heeds, while ratio, TV sets, air conditioners, steel furniture, watches and clocks are of middle and upper class desires. The report makes a number of reservations about the above classifications such as that cereals and other essentials are also part of the upper/middle class demand and the impact of inflation depending on how much of the consumption basket the item occupies. The study points to the following conclusions: 1) The WPI for 36 years — 1982-83 to 1988-89 — shows that the food bill shot up far more than the bill for manufactured products : 2) prices of consumer durables used by the poor have outpaced the prices of durables bought by the middle/upper classes. For instance price of gur shot up from 152 in 1971-72 (with 1970-71 base = 100) to 497.3 in 1988-89, while price of sugar rose from 121.7 to 337.8 in that period. This is also seen in the price movements of utensils vrs crockery, handloom and powerloom cloth vrs synthetic fabrics, pulses and foodgrains, onions and potatoes. 3) the demand for essential items is inelastic which explains why excise though levied on all alcoholic drinks, country liquor prices have moved up faster than whisky prices : 4) investments in the economy have flowed into more profitable areas which are the areas in demand by the middle/upper classes. The report says "production capacities get built for a variety of non essentials and the capacity of the economic system to produce mass consumption goods is weakened". The Economic Advisory Council has in response to the request of the Prime Minister presented a report on industrialisation and employment. Its main thrust is to recommend an alternative development strategy which will generate productive employment in all sectors of the economy along with a focus on widely dispersed agricultural growth. Its main contents are : a) calling attention to the low and declining employment growth rate in the 80s at an average 2 per cent per annum, falling from 2.82 per cent between 1971-72 and 1977-78 to 2.22 per cent during 1977-78 and 1983 and to 1.55 per cent during 1983 — 1987-88 : b) also the employment growth in the organised manufacturing and service sectors is slow compared to the fast growth in the unorganised services sector, with urban employment growing faster than rural. Thus the aggregate employment effect of growth has been slow : c) so the strategy for employment generation should comprise i) concentrating on the urban informal sector to grow at a faster rate, which is happening, but which will require production of basic infrastructure and intermediates also to grow at a faster rate, which is happening. but which will require production of basic infrastructure and intermediates also to grow at a faster rate, or ii) making agriculture play a major role in generating productive employment supported by the growth of labour intensive manufactured exports. Here the industrial sector will provide efficiently produced, low cost tools and intermediates based on which higher labour productivity will be attained in the whole economy without pressure on the balance of payments or prices. The Council recommends this second alternative strategy : d) labour intensive land development with improved farm productivity providing incomes to the

poor which will generate additional demands for agricultural and other wage goods needed to sustain production growth of such goods based on : i) employment being generated in the whole economy and not in one sector : ii) expansion of production of agro based industries that will both increase production of mass consumption goods and employment opportunities : iii) conservation of resource use particularly of fertiliser and water in agriculture and of power in the whole economy : iv) a system of priorities in technology upgradation and modernisation of capital goods, intermediate goods, infrastructure and consumer goods : v) improvement in quantity and quality of infrastructure, basic industries and services which will also reduce costs : vi) continuing the present set of trade, fiscal and exchange rate policies to maintain the current tempo in exports and promote their greater international competitiveness : viii) restricting industrial investment in favour of efficient export earning sectors like garments, leather manufactures and agro based items : viii) stimulation of a well conceived strategy for wider dispersal of small scale industries and improving their efficiency through technological upgradation and modernisation : e) the small scale units producing ancillaries should be linked with medium and large industrial state units producing industrial machinery and capital goods, be given technical and marketing support to new entrepreneurs based on product/area surveys and introduction of factoring services as recommended by RBI through financial institutions to improve their financial viability and prevent sickness. This would counter the results of the policies so far used which has led to deorganised growth, a prime cause of growing sickness. The small scale units can become more efficient by installing numerically controlled (nc) and computer numerically controlled (cnc) machines which will also help stimulate the domestic machine tools industry : f) two important shortcomings in the pattern of our industrial growth are : i) it has not helped us achieve technological self reliance in the capital good/engineering sectors. An industrial policy oriented towards generating more employment and net foreign exchange earnings should be based on an incentive structure consistent with dynamic comparative advantage and a built in bias for exports, modernisation and technological upgradation. Taking into account scale economies it should reduce gestation periods when setting up new production capacities, giving special encouragement to energy conservation and environment friendly aspects of industrial development both for balance of payments reasons and for the long run sustainability of the country's growth process : ii) the other short coming is that despite various policy changes long gestation lags continue due to lack of procedural reforms. In place of ad hoc policy changes to solve short run problems, industrial policy should provide a viable strategy to deal with sick units in important agro based industries. As the dual industrial structure will be with us for a long time, the strategy should simultaneously promote the modern industrial sector along side of the traditional labour intensive industrial sector. Some wage goods required in large volumes and at affordable prices can be produced in medium/large scale industries based on modern technology, even though they may be relatively less labour intensive. On the other hand, the traditional industrial sector based on high labour intensity can produce goods for the higher income groups and exports : g) industrial licensing policy

should be only in areas where price and fiscal instruments are not effective. Here concentration of industrial power should be prevented through fiscal measures and not through industrial licensing policy: h) in this regard fiscal incentives for promoting industries in backward areas should be linked to employment creation and not the size of investment, which will encourage small industries which are employment generating and achieve a wider industrial dispersal in backward areas: i) there should be a selective approach in permitting foreign investment, unlike the policy followed todate which permitted foreign equity participation in many consumer durable industries like consumer electronics and washing machines with buy back arrangements (as in Singapore), j) given the deceleration in the flow of concessional international assistance and the present difficult BOP situations, not a free flow of foreign investment, but rather a selective approach where foreign investment can lead to acquisition and adoption of high technology and/or where net foreign exchange will be in excess of repatriated profits. Further such investment policies should accelerate industrial growth in public and private sectors, emphasising productivity growth through modernisation, the return from such investment for replacing obsolete technology conferring greater benefits on the economy in the shot run than using fresh investment for new capacity creation. A parallel study by a Committee on Employment set up by the (previous) planning commission has presented its report in April. It points out that employment at very low levels of productivity and sub marginal incomes is a more serious problem than straightforward unemployment. An employment approach that does not emphasise productivity and income levels will perpetuate unemployment or make for full employment with a high level of poverty it states. It advises a 6.07 per cent GDP growth rate for the VIII Plan and an employment growth of 3.19 per cent, with less chances of shifting to the labour intensive production techniques ares. This is due to lack of more labour intensive technology with high efficiency and productivity in various lines of production. In large areas of production, in agriculture, unorganised manufactures and services, technological upgradation will require some use of capital per enterprise to raise productivity and employment. The committee sees employment in agriculture in the VIII Plan growing at 4 per cent, in mining and quarrying at 7.75 per cent, in manufactures at 4.2 per cent, in electricity at 4.8 per cent, in construction at 8 per cent, in transport at 3.15 per cent, and in services at 3.6 per cent. In manufacturing, employment will grow at 5 per cent for the small sector which will itself grow at 5 per cent. It forsees a high growth rate in agriculture, small and unorganised industry, and services which will call for a reorientation of fiscal, financial and other promotional policies that will give priority to small, decentralised and the rural. It emphasises employment generation as the means of eliminating poverty and argues that, as the most optimistic estimate of poverty at 30 per cent is many times higher than the most liberal estimate of unemployment at 3.75 per cent, the highest priority must be given to growth. Whether or not this report has had any impact on the Planning Commission, the commission has proposed for the VIII Plan a special employment programme costing Rs. 13,000 crores a year, amounting to Rs. 65,000 crores for the 5 years of the plan. (This is also the computation on the

costs of the 'Right to Work' arrived at by the Editor.) According to the Commission, a 3 per cent growth in Employment during the VIII Plan through normal growth process will provide jobs to only 12 per cent of the unemployed labour force. This is 1163 million person days of employment, of which 733 million person days will be generated in rural areas and 430 million person days in urban areas. At the beginning of 1989-90, total unemployment is estimated at 5153 million person days — (3229 million rural and 1924 million urban). During 1990-91 another 1707 million person days will be added to the labour force (1020 million in the rural and 637 million in urban). Thus there will be a total of 6860 million person days of employment needed for 1990-91, (4299 million rural and 2561 urban). From this if 1163 person days of employment as a result of the normal growth prices is deducted, the balance of employment generation will require Rs. 13,000 crores for 1990-91, on the assumption that i) not all unemployed persons will turn up for work in the special employment programme for all their unemployed days. The turn out ratio is assumed to be 60 per cent for the rural unemployed and 50 per cent for the urban unemployed: ii) the cost per person days will be Rs. 30 in the rural and Rs. 50 in the urban areas.

Industry

CSO's latest data on the industrial growth rate for October-November 1989 is 6.9 per cent, with manufacturing growth being 6.4 per cent — both are improved over the growth rates recorded in July-September 1989 when the industrial growth rate was 6.3 per cent and the manufacturing growth rate was 4 per cent. On the basis of this CSO data, the annual report of the department of industrial development for 1989-90 states that for the period April-November 1989 the overall industrial growth rate was 5.2 per cent (for 1988-89 it was 8.8 per cent) and the mining growth was 3.5 per cent, the growth rate in increasing 8.5 per cent and electricity 12.1 per cent (for 1988-89 they were 8.9 per cent, 7.9 per cent 9.6 per cent). The government reports to Parliament that industrial growth was 5.7 per cent in April-December 1989 compared to 8.7 per cent for that 9 month period in 1988. The report points out that industrial production at an average of 8.5 per cent and manufacturing growth at 9 per cent during the first 4 years of the VII Plan exceeded their targets of 8 per cent for industrial and manufacturing growth. The targets were exceeded in non electrical machinery, electrical machinery, non metallic mineral products, chemicals, leather, fuel and rubber products and miscellaneous manufactures and were well below in the areas of food products, beverage and tobacco, textiles, wood and wood products and transport and basic metals. In 1989 April-November, negative growth rates were recorded in jute manufacture, food products, wood and wood products and basic metals. It states that in 1989-90 the policy of liberalisation was continued in order to provide freedom of investment for improving efficiency, competitiveness, technological upgradation, maximisation of capacity use and exports thrust. Some telecom equipment, industrial control systems, computer peripherals, all manufacturing units employing less than 50 per cent were taken out of the list of compulsory licensing. 31 broad categories of industries are delicensed non MRTP from FERA companies

and 72 industries delicensed for for MRTP/FERA companies, provided the unit was set up in a backward area, broad banding was extended to 6 more industries, making the total of such industries 46, and the scheme of minimum economic scale extended to 24 more industries, making their total 108. The number of items moved from SSI was 836. 90 per cent of SSI exports were non traditional. The sugar licensing policy was further relaxed. It says that the new government is planning to modify industrial policy, without indicating the changes contemplated. It refers to the industrial slow down during April-November 1989 due to deceleration in manufactures, demand constraints, raw materials (particularly non ferrous metals) shortage. The financial assistance by financial institutions during April-September 1989 slowed down, both in approvals and disbursements, though capital issues between April-February 1989-90 increased by 80 per cent over that of the previous year at Rs. 11,600 crores. In connection with the industrial slow down in 1989-90, the trend in the area of consumer durables should be noted. According to the Economic Survey 1989-90, the consumer durables saturated rose by a mere 0.8 per cent in April-November 1989 against the 19.2 per cent growth in the same period of the previous year. The industries on the decline are TV whose production is down by 20 per cent in Black-white sets and 12 per cent in colour sets, air conditioners by —7.5 per cent, radio receivers by —41 per cent, sewing machines by —33 per cent, electric fans by —32 per cent, typewriters by —6.8 per cent and bicycles by —1.9 per cent. There are other industries where growth rates have slowed — motor cycles, from 28.1 per cent in 1988-89 to 4.2 per cent in April-December 1989, refreigerators from 39 per cent to 6.2 per cent, wrist watches from 20 per cent to 7.7 per cent and auto rickshaws from 29.3 per cent to 4.6 per cent etc. Against the production of consumer durables growth of 22.1 per cent in 1988-89, the 10 months of 1989-90 recorded a mere 0.82 per cent. The reason for this slow down given by industry is the high rate of excise and other tax related reasons. But the real cause are a) the market for consumer durables is saturated with the pent up middle class demand now exhausted, b) changed social tastes and attitudes as in the case of sewing machines, and c) the fast moving technology factor which accounts for the decline in the typewriter and bicycle demand — all of which point to the fast growth in this sector of the mid 80s being a transient phenomena. A FICCI study shows a close relation of growth rates in power generation and the rise in the State Domestic Product (SDP) of industrial origin. The study analyses the rates of growth in power generation and the rates of growth in industrial SDP and the share of manufactures in total SDP for the period 1970-71 to 1987-88. During this period MP, AP, UP, Maharashtra, Assam, Tamil Nadu and Punjab experienced 6.8 to 11.65 per cent annual growth in power generation and between 5.13 per cent to 7.13 per cent annual increase in industrial SDP. Bihar, Rajasthan, West Bengal and Kerala had a slower growth in power generation, between 5.7 per cent and 4.5 per cent. The study also analyses the regional and state power deficits : the northern region had a deficit of — 14.07 per cent in 1984-85 brought down to —1.2 per cent in 1989-90 (with UP —10.6 per cent, Haryana —13.5 per cent, — Rajasthan 2.2 per cent, Punjab —5.2 per cent and J & K —20.8 per cent) ; the eastern

region deficit was —14.2 per cent during the VII Plan and —15.8 per cent in 1989-90 (with Bihar —20.4 per cent; Orissa — 19.8 per cent and West Bengal —7.7 per cent) : the southern region's deficit is alarming with —20.2 per cent against the national deficit of —7.7 per cent (—24.4 per cent Kerala, —22.1 per cent Karnataka, —20.3 per cent Tamil Nadu and —16.8 per cent AP) : in the western region the deficit was —0.7 per cent in 1984-85 but is rising to —6.6 per cent in 1988-89 (MP from —4.3 per cent to —3.6 per cent, Gujarat from +1.7 per cent to —1.5 per cent, only Maharastra reducing its deficit from —4 per cent in 1984-85 —2.6 per cent in 1988-89). This rather grim power scenario may be related to IDBI's plan to revamp its 2 energy conservation schemes for industries initiated in June 1988, which have so far not taken off. One is the energy audit subsidy scheme (EAS) which till December 1989 had provided a mere Rs. 16 lakhs crores for energy audit in 62 industries and the second the equipment finance for the energy conservation scheme (EFEC) under which Rs. 36 lakhs have been in disbursed. The schemes which are to end in June 1990 are by wishes of the government to be extended for a further 5 years, and to make them more attractive delink the ceiling for EAS from gross fixed asset to the energy bill, lowering the rate of interest from 14 to 12 per cent, inclusion of new units and sick units etc. On industrial sickness, the RBI report on Currency and Finance 1988-89, states that 7 states — led by Maharashtra and followed by West Bengal, Gujarat, Tamil Nadu, AP, UP and Karnataka account for 80 per cent of non SSI sick units and 79.4 per cent of total outstanding bank credit as on December 31, 1988. In addition there are 1119 non SSI weak industrial units with an outstanding bank credit of Rs. 2801.79 crores. It reports that sickness is highest in engineering (249 units), followed by textiles (224) and chemicals (118). RBI states that it is disturbed by the far reaching impact on the entire economy of the existing weak criteria to identify weak units based on current ratio and cash loss which dose not enable timely steps for their rehabilitation and so has redefined a weak unit as being one which "at the end of any accounting year accumulated losses equal to or exceeding 50 per cent of its peak net worth in the immediately preceeding 5 year." RBI has made it clear that banks should take up for rehabilitation only those sick units which are potentially viable as per its norms. The relief and concessions are not to be given as a matter of course to all sick units but only to potentially viable ones defined as those which are on a position, after implementing a relief package spread over a maximum 5 years by banks/FI, Governments, to service its repayment without further concessions after the 5 year period. The repayment paid should not exceed 7 years. In the case of tiny/decentralised sector units, the period of restructured debts will be 2 years and 3 years respectively. NABARD points to its refinance facillity for modernisation of handlooms not being used because of familiar facilities from the union and state governments and so suggests that a coordinated plan be drawn up with institutional credit as well as a review on modernisation and upgradation of skills in the traditional sectors like handlooms, coir, sericulture and other village industries. The government also announced that it is preparing a perspective which projects the long term requirements of various critical inputs like plastics,

chemicals and steel and a strategy which will ensure that no unit suffers for want of raw materials in order to promote the growth of small and tiny units and counter one of the causes for the growing sickness among SSI units. Sickness in the public sector enterprises — union and states — is rampant but this has not prevented their proliferation as the table below shows :

March 31	Union & States public sector units (Numbers)	Paid up Capital (Rs. crores
1964	176	961
1969	259	1715
1974	450	4645
1979	782	8315
1984	973	19510
1989	1134	40607

It will be seen that the number of public sector units established and operated by the union government and the governments of the states is on the increase, particularly in the last 5 years. The annual report of the department of Company Affairs for 1989-90 states that in April-December 1989, 15 government companies were registered with an authorised capital of Rs. 5122 and 15922 private sector companies were incorporated with an authorised capital of Rs. 2168 crores. The average paid up capital of government companies has increased from Rs. 20 crores in March 1984 to Rs. 3674 crores in December 1989. Given the very serious problem of low returns of the public sector units, and the growing negative returns of the units founded and operated by state governments, to which the comptroller and auditor general has called repeatedly our attention, there is need now for an agreement to stop the founding of any further enterprises in the public sector and for the closing down of loss making units and units which are inessential. A rather important forward stop has been taken by not to rationalise or take over industrial sick units 'any longer' since the past experience in managing sick units has not been satisfactory. It is to be regretted that this decision is also not extended to state government, who are told that if they are "willing to take over sick units, the union will consider such projects. This is why because what applies to the union's industrial health and progress also applies to the states. Another important development is the engineering industry which has recorded an export growth of 40 per cent on rupee terms and 25 per cent in dollar terms. But, against the national engineering production of Rs. 80,000 crores to the world engineering trade of over $ 1000 billion. This means that we have still a long way to go which requires that for the

VIII Plan the target of export growth of 40 per cent should be maintained. Further the export focus should be on projects, capital goods and services where value addition is large — exceeding 400 per cent in the case of projects — both in the general currency area of Europe as well as in Asia and Africa. The government reports to Parliament that the latest data shows that Birlas are the largest asset holders in the private corporate sector and Tatas lead in total turn over and profits before tax, followed by Reliance, Singareni, Thapar, Mafatlal, Bajaj and Larsen and Tubro.

Public Sector Enterprises

On the one hand the government presents an optimistic and positive picture of the performance of the public enterprise. The 1988-89 public enterprise survey reports i) a record net profit of Rs. 2981 crores, ii) investments in them increased by Rs. 14.441 crores, 914.59 per cent growth in gross sales, increasing gross margin, gross profit and net profit, value addition and internal resources as Rs. 8898.93 crores. The Department of public enterprises reports that 33 undertakings achieved 13 per cent higher output, that the overall profit of 178 public sector enterprises increased by 59 per cent during first half of 1990-90, with net profit for them standing at Rs. 1103.25 crores during April-September 1989, that the 200 odd non petroleum sector public enterprises contributed Rs. 417 crores to overall Union PSE profits of Rs. 2940 crores, the Economic Survey remarking that while this is an improvement over the loss of Rs. 141 crores in 1987-88, the ratio of net profit to capital employed was less than 1 per cent. On the other hand, the 1989 report of the Comptroller and Auditor General states that 90 public sector companies employing Rs. 13,213.74 crores as capital incurred Rs. 1524.09 crores as losses in 1986-87, that 56 of them had accumulated losses at Rs. 4712.98 crores which exceeded their paid up capital of Rs. 3065.79 crores by 219 per cent. While 5 among the top loss making companies have gone out of this list, the Fertiliser Corporation of India which was not one of the 10 loss making units in 1987-88 now heads the loss making companies at Rs. 191.23 crores in 1988-89 followed by Hindustan Paper (loss Rs. 86.24 crores), Hindustan Steel (Rs. 70.33 crores). Hindustan Fertilisers (Rs. 156.38 crores), IISCO (Rs. 119.50 crores), Delhi Transport (Rs. 98.99 crores). It is not surprising that the Prime Minister has decided that there should not be fresh investments in loss making public sector units. The units have begun agitating against the massive internal resource generation expected of them according to the 1990-91 budget and are representing against meeting the dearness allowance liability without any budgeting assistance by cutting unproductive expenditure and improving efficiency. In fact their dependence on bonds and external commercial borrowings is to decline in 1990-91 to Rs. 3942 crores compared to Rs. 4493 crores in 1989-90 and Rs. 1466 crores of external commercial borrowings or suppliers credit against Rs. 1922 crores in the previous year. The time has come for a through review of the public enterprises with a view to a) the state pulling out of perenially loss making units, b) dropping non essential activities like Modern Bread, Hotels, Dairy supplies etc, and c) leaving to the private sector enterprises in which they

have decided advantage like Road Transport.

National Production Front

Steel

SAIL reports that its plants produced 8.27 million tonnes of crude steel, 1234 million tonnes of pig iron used by the rollers and 7.05 million tonnes of saleable steel during 1989-90. This is way behind the comparative production of steel plants in China or South Korea. Hence great hopes are placed on modernisation of the plants to increase their efficiency and their total production to 19 million tonnes. Rs. 1500 crores are being invested in Bhilai which will fund several debottlenecking schemes, modernisation and expansion of primary zone and rolling facilities. The government has removed some restrictions in secondary sector steel manufacture and is revaluating estimates for modernisation of Rourkela and Burnpur. Atlast, the first blast furnace of the Vishakapatnam Steel Project (VSP) was commissioned on March 28 to launch stage I of the plant. It has taken over 6 years to commission the blast furnace and over 9 years for the plant to become operational—when similar plants take less than half that time in South Korea. The unit cost of the 1.7 million tonnes of hot metal it will produce will be over double that obtaining in other producer countries. Is this a matter of satisfaction at this record ?

Crude

Two important developments in the hydro carbon field in the VII Plan were first the 60 per cent increase in crude output to 145.71 million tonnes and second the emergence of the South as a major producer of oil and gas. These trends continued in 1990-91, when oil and gas were struck in the first well in the Mori structure in the Krishna-Godavari on land basin. Similarly oil and gas were found at Kaikalum near Gudivada, in the onland Krishna-Godavari basin. India will be importing 3 million tonnes of crude from Kuwait through IOC to augment its supplies. The search for crude oil and petrol conservation is continuing and being intensified. ONGC's Economic Environment scanning group in its study on energy conservation and efficient use points out that the oil intensive transport sector consumes more than 50 per cent of petroleum substitutes using natural gas, apart from efficiency improvement in general. The transportation sector consumed 110 million tonnes of coal replacement in 1984-85, with the share of oil at 89 per cent, coal at 8.8 per cent and electricity at 2.2 per cent. If these trends continue road transportation accounting for 85 per cent of freight movement and 80 per cent of passengers will consume 175 million tonnes of coal replacement with the share of oil increasing to 93 per cent. Hence transportation demand for petroleum products should be moderated to reduce the outflow of foreign exchange, through modernisation of railways, through electrification and computerised freight movement, improved road conditions, extensive use of inland water ways, new product lines for liquid fuel and gas and the use of fuel efficient vehicles. The government is looking at some short term measures to reduce petroleum consumption, including rationing and closure of petroleum pumps throughout the country once a week and introducing fuel efficiency in all types of vehicles. ONGC's Institute of Reservoir studies which has worked on over 10 R&D projects including introduction of new

concepts in oil production and improving recovering from oil and gas fields at a cost of Rs. 11 crores has helped save Rs. 14 crores in foreign exchange which any other foreign consultancy organisation would have charged.

Coal

The Department's annual report to Parliament states that CIL's production of 171.5 million tonnes in 1988-89 was an all time record. Due to technological upgradation and effective management, underground coal production increased from 59 million tonnes to 61.3 million tonnes, 6 subsidiaries exceeded their targets, output per man shift went upto 1.15 million tonnes. It still registered a loss at Rs. 23.26 crores compared to the loss of Rs. 224.64 crores during the previous year due to the heavy losses recorded by ECIL. Too late, this slackness was detected by wide awake management of CIL which should correct matters so that 1989-90 would emerge as a year of moderate profit.

Sugar, cotton/textiles, drugs and cement

In regard to sugar output, a German international evaluation places India's sugar production at the top of the world production at 105 lakh tonnes due to the higher yield of sugarcane than expected. Soviet Union follows with 95 lakh tonnes, Brazil 76 lakh tonnes and Cuba 74 lakh tonnes. Even so there is a good chance of sugar being imported in 1990-91. The government estimates sugar production at 101 lakh tonnes for the sugar year October 1989 — September 1990 compared to the previous year's 87.5 lakh tonnes. With carry over 12.5 lakh tonnes at the beginning of the year and the import of 2.4 lakh tonnes, the total availability was 11.6 lakh tonnes. The expected demand is 102 lakh tonnes leaving a carry over of 14 lakh tonnes, which is 3 lakh tonnes short of what is needed in the lean (festival) months of October and November and which may have to be imported. The alternative is to cut consumption and that no government seems willing to do. With regard to the cotton/textiles front, the 1989-90 cotton crop is estimated at 115 lakh bales tonnes to 125 lakh bales due to the larger yields in Punjab and other areas. CCI has thus stepped up its purchase to over 8 lakh bales by mid February. In addition to increasing consumption by mills and handlooms, increased exports both of cotton and yarn as well as textiles need to be explored. In this connection there is a strong case for the Union and state governments helping to enforce the Cotton Transport Act and the Cotton Control Act which provide for maintaining the purity of cotton and reducing the increasable varieties that are being grown which leads to admixture in picking, marketing and processing. What is needed is a series of measures to reduce and eliminate the proliferation of the varieties of cotton. Against the plentiful cotton supply and the increased consumption of cotton by all 3 textile sectors, particularly the mills, the new textile policy is being looked forward to greater exports. The constraints which had faced the industry now no longer exist, and the policy should therefore help boost textiles production. It is reported that per capita domestic cloth consumption is increasing from 15.3 meters per year in 1985 to 16.90 metres in 1989, mostly in cotton fabrics. With regard to drugs, the March decision of the govenment to bring

21 bulk drugs under price control, placing them under category II of Drugs Control Order would give a boost to their being produced locally. They are in the main being imported and one effect of this decision will be not only to keep their prices under control but also to stimulate their domestic production. The Rs. 3000 crore drugs and pharmaceutical industry is up in arms against this decision and is using all means to counter it and fight it, holding out the ultimate threat that the production of these drugs will be sharply reduced. It is to be hoped that the way in which the DPCO 1979 was used by industry to reduce production so that the VI Plan targets were not attained, forcing the government to change policy by announcing the New Drug Policy of December 1986 which really gave into the industry, will not be repeated. Now the imports of these 211 drugs are freely allowed and there is no dearth of formulating capacity in the country. It is to ensure that their prices are reasonable that they have been put in category II, where 100 per cent mark up on the landed cost of the bulk drugs is available for the formulations. The industry feels that what is needed is not price control but rationalisation of duty structure and assured returns on investment which the order does not ensure. On the cement front, the Cement Manufacturers Association 1989 report states that cement production in the country was 42.01 million tonnes against the installed capacity of 56.09 million tonnes which is 80 per cent capacity use and with a closing stock of 7.42 lakh tonnes which is a 47 days inventory. This means that the glut in the industry is over. For January 1990 production was 3.92 million tonnes and sale 4.01 million tonnes. Thus with 89 per cent capacity use, the industry has achieved in a month what it did not in the last 7 years. There was a 3 per cent increase in production and 8 per cent increase in demand. The Union government has reacted to this situation by withdrawing all restrictions and regulations both of union and states on free sale of cement. This should remove the artificial scarcity of cement in interior towns and villages because of the time taken by traders to obtain clearances, licenses and permits from at least 21 different authorities of state governments. Thus from now, all will be free to buy, sell and stock cement freely and at one stroke, the source of corruption which these controls engender has been annulled.

Forestry and Environment

With all accent on conservation of the environment and the publicity on social forestry in which Tamil Nadu is supposed to be pioneering, there is hardly any evidence of the official forest policy being influenced by this conservation objective. On the one hand environmental benefits flowing from the limited natural forests that are still intact are consistently undervalued by the policy makers and most of the public. On the other hand, the net benefits from forest exploitation and conversion are overestimated through exaggerating the direct and indirect economic gains and undervaluing its social and ecological costs. This is at the root of the raging controversy surrounding the Narmada Sagar and Tehri Dam projects. The extent of this forest cover loss is under estimated as is the human desettlements on which governments have invariably reneged on their original commitments. There is neither the promised afforestation nor the rehabilitation of the displaced

families. All this makes a mockery of the governments forests and environment policy. The Union Ministry of Forest and Environment is rightly concerned over the state governments looking upon forest as a source of revenue. For example in Assam timber worth crores of rupees was logged to meet the financial needs of the elections. A great deal of the damage is due to clandestine operation by smugglers or contractors. The government proposal to pass legislation to control and monitor saw mills who are the ultimate consumers of forest products will be negatived by the vast army of inspectors that it will require and the increased scope for corruption and bribery. There is need to have an adequate number of forest guards and even more to enlist the cooperation of ST and all forest dwellers, starting with recognising their right and protecting them against exploitation. There are serious human and technical problems related to Narmada, Tehri, Sarovar dam projects which need serious attention and early decisive action. It is hoped that the environment monitoring committee constituted by the government headed by the Member CWC can and will ensure adherence to ecological safeguards in irrigation, multipurpose and flood control projects.

Agricultural Production

Foodgrains data is still in a state of flux. For 1989-90, the target was set at 175 million tonnes (98 million tonnes khariff and 77 million tonnes rabi), the production estimated at 170 to 173 million tonnes compared to 170.25 million tonnes in 1988-89. For 1990-91 the foodgrain production target is likely to be 177.5 million tonnes, which is 1.4 million more than the 1989-90 target. The target is based on another good monsoon year which is supported by the warming seas, and the orientation of the earth and atmospheric pressure. The Economic Survey data on agricultural output for 1988-89 — wheat output increased by 16.9 per cent, rice by 24 per cent, coarse grains by 24 per cent, pulses by 25 per cent, cotton by 36 per cent, groundnut by 64 per cent, jute by 13.6 per cent. But rice and wheat and pulses missed their targets by 3 per cent and coarse grains by 2 per cent. More generally it is pointed out that the peaks were attained due to the drought and abnormal years and low output in earlier years. This in part explains the higher targets set for this year at 177.5 million tonnes, with the maximum hike at 3.7 per cent for wheat, based on the expectation of good rains, higher fertiliser consumption and higher credit. Coarse grains consumed by 60 per cent of the population, in 1988-89 recorded 31.90 million tonnes (against 33.90 million tonnes five years ago), its availability is reduced by 10 per cent per capita and its share in total foodgrain declining steadily from 29 per cent in 1950-51 to 19 per cent today. Only jowar at 10 million tonnes along with bajra and maize, are being cultivated in irrigated lands, but even so jowar output has declined by 2 million tonnes compared to 1987-88. Pulses with 2-3 per cent higher protein content than cereals increased by 25 per cent in 1988-89 over the previous year, but over a five year period has been stagnant. in 20 years its output rose by 1.90 million tonnes and its per capita availability declined from 69 gms a day in 1960 to 51 gms a day in 1970, and to 35 gms today. The pulses special programme and its being placed under OGL to increase its availability have not had result at 500 to 600 kg per hectare partly because of low level of

irrigation at less than 8 per cent. The only cereals which have increased in output are wheat and rice, wheat increasing from 23.8 million tonnes in 1970-71 to 44 million tonnes in 1984-85 and 54 million tonnes in 1988-89 with the doubling of its per capita availability, because of 18 out of 23 million hectares are canal irrigated, with per hectare yield at 3600 kg. Rice output has doubled in 25 years from 60 million tonnes in the VI Plan to 70—76 million tonnes in 1988-89 due to the special Rice Development Programme. A good feature of last year's agricultural programme is the rise in oil seeds output from 9.6 million tonnes in 1970-71 to a low 12.65 million tonnes in 1987-88 and the spurt to 17.89 million tonnes in 1988-89. So too the record for cotton and jute. All this has involved some improvement in the poor man's diet but no stability in prices as was earlier noted. Rice procurement in 1989-90 is setting a record. With more than 4 months of the procurement period still left, at March 1990, 98.95 lakh tonnes have been procured and by the end of the season, it may hit 110 lakh tonnes. Foodgrain pricing is also attracting attention. The procurement price of wheat for 1989-90 rabi was raised from Rs. 193 to Rs. 200 per quintal and in the second round in late March to Rs. 215 (which is Rs. 32 per quintal over last year). Similarly the price of rape seed has been raised from Rs. 510 to Rs. 575 per quintal (which was a 24 per cent increase over that of last year). The support price for barley has been raised from Rs. 160 to Rs. 180 per quintal, gram from Rs. 370 to Rs. 471 per quintal, safflower from Rs. 490 to Rs. 500. These increases which are over and above the higher prices already announced at the time of rabi sowing followed from the Hanumantha Rao committee recommendation on the methodology used in determining the cost of production of crops. But these increases have to be paid for by the government or the consumer. The government is faced with a stringent financial situation (it has reduced the food subsidies from Rs. 2476 crores in 1989-90 to Rs. 2200 in the 1990-91 budget) and so the issue prices have been raised—wheat by Rs. 30 per quintal from PDS. This will fall rather heavily on the poor man, the consumer in the last 2 deciles. The compensation is the higher remunerative prices received by the farmer — who is in general in a higher decile. To prevent the further worsening of the price situation for the poor man, the open market prices should not be allowed to go out of control as a result of these increases of the issue prices and the general inflationary pressure. For this, the large foodstock should be deployed as a buffer. The Bhanu Pratap Singh Committee (See Vol. XX p. 160) has submitted an interim report to the government on agricultural policy which has recommended i) establishing equality with other people in village and towns in income and facilities and to declare agriculture as an industry has further recommended, ii) doubling of agricultural production in 15 years, iii) rapid afforestation and rural education, iv) boosting exports of farm products through producing quality products on sustainable basis, v) replace the present bureaucracy propelled development strategy by peoples participation development strategy through atleast one model farm in each panchayat, with the model farmers with high school education and owning less than 2 hectares trained at government expenses in a research institute and with loans to buy animals and tools. These farmers will be green card holders for loans from all banks and become messengers of modern farming.

Import-Export Policy

The new Import-Export policy for 1990-93 was announced at the end of March. Its stated objectives are : 1) to encourage rapid and sustained exports including export of services and those which earn higher net foreign exchange. 2) to facilitate import of inputs for sustaining industrial growth including import of capital goods for modernisation, 3) to simplify procedures for import licensing and export promotion, 4) to support indigenous R&D institutions for building up their scientific and technological capability for technology absorption and 5) to promote efficient import substitution and development. The main features and provisions of the policy are : a) a scheme for the import of capital goods for export production at a concessional duty of 25 per cent along with resulting enhanced export obligation is introduced : a blanket advance licence scheme introduced for an exporter exporting of Rs. 10 crores or more who can enjoy duty free imports : b) 82 capital goods have been added to the list of OGL and in view of their indigenous availability, 17 items have been removed from the list. Similarly on the basis of domestic production/ demand 55 items of raw materials, spares and consumables have been added to OGL : in other words OGL items have been reduced from 870 to 819 and the number of capital goods in OGL increased from 1261 to 1343 : c) the scheme of automatic licensing is introduced so that production will not be held up because of lack of critical components and raw materials and to supplement the Limited Permissable and Restricted items which have been enlarged : the import-export pass book scheme has been scrapped because of lack of interest in it : d) export and trading houses are to be used as a major vehicle for export promotion and so special recognition of companies earning net foreign exchange of more than Rs. 75 crores are given the status of 'Star Trading Houses' which will entitle them to enhanced import facilities and other flexibilities : e) the threshold limit for recognition of export houses earning an annual net foreign exchange has been raised from Rs. 2 crores to Rs. 5 crores and of trading houses from Rs. 10 crores to Rs. 20 crores : f) export house/trading house status on the basis of double weightage to exports from the small sector is to be continued, small importers are allowed to form consortia to meet their export obligations : also small exporters (upto Rs. 10 lakhs) can now register themselves with one exporting council instead of multiple registrations for different productions as of now: g) the export of services is encouraged through the grant of REP license facility at the rate of 10 per cent of Net Foreign Exchange (NFE) earnings — through export of software computer consultancy services, managements consultancy services etc. : h) a simplified and rationalised REP licenses scheme for registered exporters is provided with full flexibility and transferability to give greater impetus to export of higher value added products: i) a number of measures to lessen licensing controls and a new concept of employment generation is introduced through provision for licenses for import of spares and components by service centres : j) the deemed exports category has been extended to include consumer durables and vehicles to diplomats and trade/missions in cases where such supplies are against foreign currency : k) NRI will continue to get special facilities for import of capital goods, raw materials, components and consumables used for setting up or for participation in industry : l) 5 items

have been decanalized, namely tin (shifted to OGL). Dapsone Diamino diphenyl sulphant and streptomycine sulphate (shifted to App 28) paraxylene and copper cathodes (shifted to App 3A) : m) 12 items of life saving drugs are recognised for import under OGL, along with 4 items of life saving equipment and the value limit for import of drugs and medicines by individuals, medical practitioners and hospitals has been increased in view of indigenous capabilities, n) some items of office machines have been taken off the permissable list of imports while new items have been added to the list : o) imports by public sector undertakings against specific foreign exchange ceilings have been increased, including OGL import of capital goods by steel projects at Durgapur, Rourkela and Burnpur : similarly imports for ONGC and SAIL are permitted : p) research and development institutions recognised by DST, CSIR and higher education institutions and hospitals are allowed to import restricted capital goods and consumer durables needed for R&D work : q) import of instruments is liberalised to facilitiate acquisition of sophisticated precision instruments and 12 quality control instruments. 12 instruments are allowed for import under OGL and 2 taken out of the restricted list while 5 have been added in view of indigenous capabilities : r) curbs have been imposed on misuse of the facilities provided under the policy such as an inter- departmental committee screening for those applying for impex code number, monitoring export proceeds against earlier exports when REP benefits are granted and licensing of reexport of goods under OGL without express approval of chief controller of Imports and Exports ; the Export policy for 1990-93 regulates the exports of a total 191 entries only, 68 not being allowed for export, 31 are on 'merits' 25 under limited ceiling, 18 canalised and 48 under OGL on specific conditions. All others are freely exportable under OGL. The three year policy is aimed at improving the low 0.5 per cent of India's share of world exports and the 7 per cent of GNP being our exports. The policy itself is essentially a continuation of the past, with no major deviations or surprises. In adding to item under OGL, lowering the barriers to the import of capital goods used in exports (through the 25 per cent import facility, and liberal imports against REP), the effect of the liberalising of imports needs to be watched to see if it results in attaining its purpose, which is modernisation of Indian industry and increase of exports. One welcome aspect of the 3 year policy is the emphasis on service exports — software, consultancy etc. In all this emphasis on exports, another test is the extent to which our industry is able and willing to globalise, which calls for an integrated fiscal, export-import and industrial licensing policy, and which is at present lacking. In fact the 3 elements of the policy are pulling in different directions. For instance, one department of government determines what should be the physical controls (licensing), another department decides on the degree of fiscal controls (excise and customs), and yet another wing of government decides on the norms for domestic and foreign investment. It will take us some time to develop a coordinated, integrated policy out of these three elements and until that is done the objective of globalisation of industry and the limited one of export expansion will be only partially attained. Thus the three year import-export policy makes an incremental contribution to increasing our export potential, which depends on our indu-

stry being modernised and becoming internationally and internally competitive. Then the bogy of the "pull of the domestic market" will become just that, because the domestic market which for the sub continent will always be a major factor will also function under a modernised, efficient and productive industrial system.

Foreign Trade

On foreign trade, exports in the 10 month period April-January 1990 increased by 37.9 per cent from Rs. 15,991.96 crores in that period in 1989 to Rs. 22047 crores. Imports increased by 25.9 per cent from Rs. 22988.71 crores during the 10 months of 1989 to Rs. 28,937.49 crores during April-January 1990. On this basis government reports that the trade deficit during the first 10 months of 1989-90 touched $4.16 billion, the imports at $ 17.5 billion (8.7 per cent growth) and exports $ 13.3 billion (19 per cent growth). This is a counter to the report that in the first 9 months the trade deficit was 16 per cent less at Rs. 5518 crores and in dollar terms was 28.2 per cent. There is some difference of opinion over policy to cope with the resulting Balance of Payments (BOP) problem. One view is that BOP correction demands correction of fiscal imbalance, as a reduction in the current account deficit reduces the overall savings investment gap of the economy. This is also broadly the IMF thesis. The other view is that BOP correction demands a review and pulling in and cutting of imports and the import policy, particularly when foreign currency reserves stand at Rs. 5533 crores as of 16 February (in SDR terms the reserves were SDR 2455.8 million on February 16 which means it actually fell by SDR 41.9 million in the 4 weeks before that date) which will pay for 6 weeks imports, and even so, being sustained by NRI deposit in Indian Banks. Actually these are not either/or alternatives : both are needed. There is need for cutting down rapidly and drastically the budget deficit : and there is need to bring down import. And then there is the complicating factor of foreign capital inflows and outflows which are or should be deterred by debt service ratios. It is important to bear in mind that the current account deficit can be given a false appearance of not being large by foreign borrowings. That this has been done to some extent as seen in the RBI report that India's medium and long term external debt (other than NRI deposits) rose from Rs. 13,430 crores in March end 1980 to Rs. 35800 crores at March end 1985, to Rs. 55000 crores at March end 1988 and further to Rs. 69681 crores at March end 1980. As a percentage of GDP it rose from 11.7 per cent at March end 1980 to 17.8 per cent at March end 1985, with the debt service ratio rising from 8 per cent in 1979-80 to 13.6 per cent in 1984-85 and to 24 per cent in 1987-88 (the minister of Finance places the foreign debt at Rs. 100,000 crores and the debt service ratio at 30 per cent). The external debt had to be financed largely through the inflow of capital by way of commercial borrowings, NRI deposits, and multilateral and bilateral assistance. From this overall point of view, the 2 changes made in early March in import policy concerning pig iron under OGL to actual users and that concerning alloy and alloy steel items may not be helpful in the BOP problem. On individual items, soft ware exports are likely to miss the target as they are proving less cost effective abroad : MMTC reports that its 1989-90 exports crossed

Rs. 1000 crores: *export of engineering goods in the first 10 months* April-January 1989-90 were Rs. 1655 crores (against Rs. 1165 crores the year before) and at this rate will attain the year's target of Rs. 2200 crores according to EEPC: CCI reports a boom in cotton export at CLI export of 3 lakh bales and that of Maharashtra Federation of 2.30 lakh bales; the government states that it is giving the highest priority to value added exports: the marked growth in major export items in 6 months April-October 1989 are chemicals (by 89.8 per cent), agricultural and allied products (by 65.9 per cent), engineering goods (41.4 per cent), textiles (40.6 per cent), petroleum products (40.1 per cent), ores and minerals (37.8 per cent), plantations (37.2 per cent), gems and jewellery (30.2 per cent), carpets (24.7 per cent), leather and leather manufactures (22.9 per cent), and handicrafts (19.7 per cent). On the other hand, the piling up of garments of over 2200 tonnes at the international airports is likely to reduce their exports: similarly an IIFT study points out that despite the increased exports of Rs. 516.25 crores in 1988-89 from the country's 6 Export Processing Zones, their potential is still untapped. Their exports which constitute only 2.55 per cent of all India exports need to be doubled this year. The question of the place of the Rupee trade in the country's export needs attention. The 3 year Import-Export Policy seems to downgrade it (in para 234 (i) vis a vis trade with the general currency area. The Rupee trade provides the country with many benefits, raw material and machinery at lower costs, increased volume of exports, creates employment in the small and medium sectors and has developed free trade and export processing zones. It is also the one unprotected industrial area which needs to be enlarged. What is needed is for the Rupee trade to lease to be a government to government arrangement and for the private corporate sector to enter it freely and play its part fully. Meanwhile the US government in late April has once more named India under US trade law Super 301 as an unfair trade nation, removing Japan and Brazil from that category (see Vol. XX p. 11). The Union commerce ministry has fixed an export growth rate of 20 per cent in dollar terms and 12-13 per cent in volume as for the current year, 1990-91.

Aid and Loans

IDA is to provide credit of $75 million and the World Bank $13 million to help increase crops and livestock in J&K, Haryana, HP, and Punjab. The World Bank has offered a third line of credit worth $300 million to the cement industry to upgrade its technology from wet to dry process. The World Bank's second export development project has made available $20 million to motivate firms to draw up and implement a systematic plan leading to incremental export. This loan is being made available through Ex-Imp bank, ICICI, Bank of Baroda and Canara Bank. The World Bank has sanctioned Rs. 6 crores to the Tamil Nadu Agricultural University for "the phase two project" for agricultural development in the state. It has offered a loan of $200 million to the Container Corporation of India for its developmental scheme. It is finalising a loan agreement for $140 million with the Indian Petrochemicals Corporation for carrying out the scheduled expansion of the Maharashtra Gas Cracker complex at Nagathome and Baroda. The World Bank in its country paper urges an increase in the level of and disburse-

ments to India to atleast $3.5 billion by 1990-91 as a preparation for the Aid India Consortium meeting in the summer. The International Finance Corporation is lending $16.4 million to Mahindra and Mahindra for its modernisation and expansion programme. West Germany has pledged developmental assistance of DM 800 million (DM 425 million on concessional terms, DM 201 million from credit Bank for Reconstruction and DM 201 million on conventional terms from that bank). Japan has offered 16.86 billion yen (Rs. 173.81 crores) under a 6 loan agreement signed in Tokyo to help the Basin Bridge Gas Turbine Project and the Bhavani Kattalam Barrage Hydro Electric Project in Tamil Nadu. ICICI has been permitted to raise $ 50 million from the Singapore financial market with three banks of Japan, Italy and South Korea. The US is making a loan of $ 26 million to the National Housing Bank under the housing guarantee programme.

International

IMF

While IMF's Executive Board meeting at the beginning of March failed to reach an agreement on increasing its resources and member quotas, the group of seven (G-7) industrial nations meeting in early April in Paris reached agreement to raise the resources of IMF by 50 per cent. This means that IMF's capitalisation will be raised by half to SDR 135 billion or $ 175 billion. This is a compromise between the positions of France to double the IMF capital, West Germany which wants a two third increase and US which wants a 35 per cent increase. There are still differences about individual nations quotas, the chief dispute being between France which wants to keep its 5 per cent share and UK which wants a 6 per cent share. US has proposed a compromise of 5.6 per cent quota for each. The G-7 were also nearing agreement on helping the world's poorest nations who are in arrears to IMF of $4 billion. The proposal here is that these countries (Sudan, Zambia, Liberia and Peru account for 80 per cent of the arrears) should be allowed to seek new IMF funding if they present acceptable economic reform programmes. A disturbing development is that these important decisions which concern the developing countries are being taken outside the IMF framework by the rich man's club. IMF reports that global foreign currency reserves are $768 billion held by central banks around the world. These holdings reflect efforts by the industrialised countries to influence trade through international exchange rates and by third world countries to stockpile cash for emergencies. The largest increase at the end of 1989 are by US $ 63.3 billion (up from 36.9 billion at 1988 end), Japan holding $83.7 billion down from $97 billion at the end of 1988. The US and Japan were both trying to keep the price of the dollar low so that US could sell more goods and Japan and other countries would buy more.

World Economy

A UNCTAD report paints a bleak picture of the world's 42 poorest countries becoming poorer, with their economic growth lagging behind the population increase due to domestic policy failures and lack of international assistance and urged "enormous endeavours,' to arrest the decline. In only 5 countries economic growth outpaced population increase—Bhutan, Botswana,

Cape Verde, Maldives and Yemen and Bhutan, Cape Verde, Yemen, Burkuno Faso and Guinea Bissaau also attained a better agricultural growth rate — of more than 4 per cent. This report prepared for the special UN conference on the least developed countries in September calls for doubling of relief programmes and eliminating bilateral debt. For them, agricultural production increased by 2 per cent and population 2.4 per cent, totalling 440 million. At the present rate the third world population will increase to 4.8 billion by 2015, with the population of the poorest countries doubling to 882 million. The average annual GDP increase in LDCs is 2.3 per cent during 1980-88 compared to the target of 7.2 per cent set by the special UN conference in 1981. The total outstanding debt of the 42 LDCs doubled between 1982 and 1988 to $69 billion while their share of world exports declined from 1.4 per cent in 1980 to 0.3 per cent in 1988. A UN meeting of experts arrived at similar conclusions, that the world economy faces a moderate slow down in 1990, with output declining in East European countries and per capita growth falling in Africa and Latin America. The slow down among industrial countries would be particularly marked in Canada, UK and US where a long period of economic expansion will be interrupted by tighter monetary policy, shrinking Federal deficit and decreased rates of investment and export growth. The reduction in both world trade growth and the demand for primary commodities will reduce the exports of most developing countries, particularly the sub Saharan African countries. In most East European countries, the political and economic reforms underway are exacting heavy transitory costs as overall output will decline in the region in 1990. Asian countries, including China, will fare better than the world average, but increasing protectionism, some exchange rate appreciation and slower pace of world demand will reduce their buoyant growth rate. In Latin America per capita incomes fell again in 1989 and will fall further in 1990 due to heavy debt service payments and slow down in world demand for their exports. The oil exporting West Asian countries had a higher growth rate in 1989 and will continue in that direction as declining oil production in the industrial countries with increased oil consumption will sustain current price levels and increase their export earnings. The 18th UN special session at the end of April brought together all member countries to take stock of the world development situation and agree upon measures to improve international economic cooperation. The declaration at the end of the conference was held up because of prolonged negotiations between industrialised countries, led by the US who did not want the conference and were not willing to give anything away in aid or trade. Next month's issue will spell out the results.

GATT - World Trade

A conference of the major developing countries (60) involved in GATT at a meeting in New Delhi in March agreed on the need for a coordinated action to rectify the "imbalance and asymmetry" which has emerged in the negotiating process in the Uruguay round of trade negotiations now at a crucial phase. The developments in the negotiating groups on trade related intellectual property rights (TRIPS), trade related investment measures (TRIMS) and the work of the groups on negotiations on trade in services were reviewed. On TRIPS the need to focus on trade

related aspects and not on intellectual property was stressed. On TRIMs, investment should not be reduced to the trade aspects alone as it was crucial to development. On the issue of services, the need for the development dimension to be integrated in terms of operationally effective commitments in the multilateral framework for trade in services should be emphasised. The meeting felt that the integration of the textiles and agricultural sector into the GATT mainstream was essential if the bias in the trading system against the developing countries is to be corrected. There was agreement on negotiations related to the proposals for minimising the trade barrier effect of countervailing duty and anti dumping duty action. In a major breakthrough, the negotiating group on textiles under the Uruguay round has agreed to prepare the draft framework on MFA by June end to be discussed in July and presented to the final Uruguay round in December. This may be the means of breaking the deadlock caused by US and Canada wanting to dismantle MFA and introduce global quotas and the rest including EEC and India wanting to continue MFA. GATT reports that world merchandise trade rose by 7.5 per cent to $3.5 trillion in 1989, against 17 per cent in 1987 and 14 per cent in 1988 (which were due to inflation and depreciation of US dollar in those years). 1990 is expected to be a good year, with world output and trade expanding. The negative elements were identified as lack of progress in dealing with the problems of the least developed countries, persistent inflation in industrial countries and the large current account imbalances of the major world traders. In value terms, developing countries boosted their exports by 8.5 per cent in 1989 against 7.5 per cent and industrial countries and 4.5 per cent for Eastern trading area including China and N. Korea. The governments' International Financial Statistics reports that the aggregate trade deficit of industrial countries widened to $1.30 billion in 1989 (compared to $80.1 billion in 1988). There was a steady decline in the overall government deficits in 17 industrial countries in 1988. The value of their exports rose by 6.5 per cent in 1988 and imports by 8.9 per cent. The progress in reducing trade imbalances of the US, Japan and West Germany was uneven. In developing countries central government deficits averaged 5.4 per cent of GDP in 1987, in Asia it was 5.0 per cent in 1987 and in Latin America 7.2 per cent. In Africa fiscal deficits were maintained at constant levels.

ILO

In a series of studies, ILO calls attention to the fact that i) the unskilled worker is becoming unwanted as in 92 out of 110 countries surveyed occupation demanding professional and management skill have increased, similar to the occupations associated with services, sales and clerical work which require client oriented skill. The report says that during the years between 1945 and 1989, the occupation categories requiring professional and managerial skills grew considerably in industrialised countries and its share of the job market increased substantively. Increases in the share of the production skills also dominated the developing countries especially in Bangladesh from 6 to 17 per cent, South Korea from 9 to 28 per cent, Pakistan 19 to 26 per cent and Sri Lanka from 17 to 27 per cent. Since 1945 the agricultural sector declined in most countries reducing

steeply the demand for unskilled labour, the share in agricultural work declining in South Korea from 80 to 38 per cent, Mauritius from 38 to 24 per cent, Iran from 57 to 40 per cent, Jordan 38 to 11 per cent and Turkey 78 to 59 per cent : ii) in another survey it states that replacing the traditional work force with experts to exploit the emerging technologies poses the biggest training challenge which is exacerbated by the staggering increase in the number of job seekers in the third world, the aging work force in the industrialised countries and the increase in the number of women seeking jobs. The sheer size of the developing world's labour force is outstripping the capacity of existing training institutions and building new ones are prohibitively expensive ; iii) in a third report, it points out that Asia cannot maintain its superb performance in the 90s unless they build up skilled, well educated work force rather than rely on low wages and labour intensive sectors as in the past. It concludes that the challenge is to shift the focus of policy making from economic growth and employment generation to human resource development. The economic edge in the next decade will go to those nations who focus on skills on entrepreneurship and research and a solid system of primary education will help attain the new goals as South Korea, Hongkong, Singapore and Taiwan show, shifting from labour based production to technologies requiring a high degree of skill and entrepereneurship. It recommends that other Asian countries should follow suit and shift to human resource development : iv) in a fourth report it states that while child labour has been reduced dramatically in mainstream industries, it is on the rise in other sectors in the developing countries. Child labour is widespread in agriculture, domestic service, small unregistered enterprises. Their number is unknown but most children over, 10 years of age from poor families are working. Most exploited children are not protected by law. The abuse of child labour depends on its invisibility in family terms when children have to work long and hard, in the informal urban sector where they face several hazards, as child carpet weavers which ruin their eye sight and as household servants subject to exploitation and abuse. The vast majority of them are girls in Asia, Africa and Latin America.

World Education

UNESCO with IBRD and UNICEF organised a world conference of Education ministers on the subject Education for all by 2000 in March, in Thailand. There was agreement that lack of education is the major cause for poverty and underdevelopment. Every country pledged itself to wipe out adult illiteracy and enrol all its children in primary schools — against the 100 million now not attending schools, of whom 60 per cent are girls. The World Bank announced that from now it will invest $1.5 billion a year in 'Education for all'. This must be matched in money and manpower by the developing countries to which they pledged themselves in the Tomkin declaration which was the outcome of the conference.

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II Agricultural Development in Tamil Nadu

Paddy and other crops

March and April were busy months for the farmers — those engaged in samba paddy, sugarcane, banana, cotton, groundnuts and cholam, cumbu, varagu — as it was the harvesting season for all of them. The weather was hot and dry for most of the time except for 3 spells of summer rains which were referred to earlier. Farmers were bringing the harvested paddy to the purchasing centres, of which 720 direct purchase centres had been opened in Thanjavur district alone. The Tamil Nadu Civil Supplies Corporation which is responsible for procurement of paddy from the farmers reports that by early March seven lakh tonnes of paddy had been procured against a target of 11 lakh tonnes Harvest of samba has been completed by the farmers in all the 11 lakh acres which they cultivated in the Thanjavur district this year. The average yield they obtained was between 5 and 5.5 tonnes per hectare. Harvest have been completed also by the farmers in the districts of Tirunelveli, Tiruchi, Coimbatore, Madurai and North and South Arcot, where millets which have recorded high level of growth in the rainfed areas have been harvested. Farmers also report satisfactory yields of groundnut and cotton this year in South Arcot, Coimbatore and Salem.

Research results

Research reports in March/April came in from a variety of institutions covering a wide range of agricultural projects and problems. From IRRI, Philippines the report of the successful use of native plant species like red pepper to fight a number of rice pests, from the Agricultural College, Killikulum the results of using various methods of combatting weeds in rice which are a large destroyer, from the TNAU plant clinic centre, Vellore on chemical control of gallmidge menace in rice, from the Malapuram Centre on means of controlling rice field crabs using phorate, from TNAU, Coimbatore on the use of phosphorous in pulses and the successful demonstration in using the synthetic growth promoter, NAA 30 pm to regulate the growth of sesamum from the research station Vridachalam on measures to check sesamum pest, and also from the same station on the means of controlling the spread of gall midge in sesamum, from the College of fisheries, Mangalore on control measures against the stem and root borer in cashew, from the irrigation training institute Tiruchi on means of increasing Bellary onion cultivation and its manuring and harvesting which yields handsome returns, from the Sirkhazi farm on how bamboo can be grown as a highly profitable crop, from Kerala agricultural university, on the control of stem bleeding disease which cripples palms, from a Cumbum farm on growing and propagating thomson seedless grapes, from the Central Institute of Cotton Research on the use of neem oil to check white fly outbreak in cotton farms, from, GB Pant university on the 2 new ragi varieties — Pant Mandue-3, and PES 110, which it has developed, from TN rice research station Institute, Aduthurai the successful techniques which it has developed for cultivation of the red oil palm, from the Sholavaram farm on the successful technique of plucking tender coconuts to boost yields, from the Pilicode Agricultural Research Station on the advant-

age of growing the large as well as small coccinia fruit, from the field crop research Institute, Barka on growing oibanun for its raisoners product used as fragrance, from TNAU, Madurai on controlling Tukra a mulberry disease which is spreading rapidly in the state, from Kerala Agricultural University on control measures against the flea beetle which is an important pepper pest, from Bidi, Tobacco Research Station, Nipani on controlling the green peach alphids pest in tobacco farms, from the agricultural research station, Bhavanisagar on the effective management of alletopathic plants and control of their residues, from the Centre of Water Resources, Calicut, on the efficient and economical use of water resources for irrigation, from the Kerala Department of Agriculture on dealing with the quick will disease in black pepper plants, from TAFCORN, Tiruchi which has developed and demonstrated a low cost technique of clonal propogation, from the sugar cane research station, Cuddalore on how to correct iron deficiency in sugarcane, from regional agricultural research station, Nandyal and its demonstration of how mustard can be grown as a rabi rice based sequence crop, from the communications centre, Thisoor, on its successful demonstration of growing high yielding of guinea grass, from the agricultural research station, Bhavanisagar on means of controlling the stem and root boreir in cashew, from veterinary college Namakkal on means of maintaining freshness in eggs and its results in avoiding blood spots in eggs, from the college of veterinary and animal sciences, Tiruchi on combatting viral infection and plague in ducks, from India Immunologicals, Hyderabad on treatment of cattle vaccine which checks theloriosis, from a Cumbum farm on goat rearing in deep litter system which fits in with field crops and acqua culture, from the college of fisheries, Bangalore on means of identifying and the harmonal sex control in fishes, from the Department of Animal Husbandry, Vizianagar on countering chicken anaemia and other poultry diseases, from the lamb farm, Guntur on combatting infectious diseases — Eterotaxaemia in sheep and goats, from the Pune laboratory on a simple system of waste water recycling using earthworms, and from Kerala Agriculture University, Vellannikkara on the growing of hog weed throughout the year as a culinary and medicinal herb.

1990-91 agricultural programme

The government informed the legislative assembly that the production targets for 1990-91 are rice 60 lakh tonnes, millets 16.50 lakh tonnes, pulses 5 lakh tonnes, cotton 5.30 lakh bales, sugarcane 24.25 lakh tonnes (jaggery), Rs. 2 crores are allocated for oil seeds, horticulture and plantation crops, seed certification, agricultural engineering and TNAU. The programmes are on to cover 18 lakh hectares under millets and 10 lakh hectare under HYV millets. A Rs. 11 lakh horticultural farm has been sanctioned for Dindigul, and under JRY Rs. 6 crore are to be used to construct 43 percolation ponds. Under schemes for hilly terrain Rs. 1.4 crores has been allocated for western ghats development programme, Rs. 1.7 crore for catchment area of Kundan and lower Bhavani river valley projects and Rs. 1.4 crore for HADP for Nilgiris. The scheme for dryland farming in Chidambaram and Tirunelveli — Kattaboman districts will cover 44,000 acres at a cost of Rs. 6.25 crores, while the new integrated dry land farming programme will be implemented all over the state, benefiting 75,000 acres at a cost of Rs. 1.5 crores.

Demonstration in the dry land farming techniques will be laid out in 300 locations, each location being spread over 250 acres. A Rs. 170 crores Tamil Nadu Agricultural Development project which is to reorganise agricultural extension services, improve facilities for seed production and fodder development, water shed management and rural roads is to be undertaken with the assistance of the World Bank.

Animal husbandry

The National Dairy Research Institute has developed a revolutionary technology that makes for fast multiplication of superior buffaloes which will improve the productivity of genetically better animals and increasing milk production. Using the "In Vitro Fertilisation" (IVF) of female eggs with buffalo spermatozoa, a break through has been obtained in embryo transfer technology which makes possible production of test tube buffalo embryos. Unlike the normal reproductive process, IVF in the process of embryo transfer, can make a superior female supermulate and produce many occytes instead of the normal one. Thus the potential of a good bull siring offspring is expanded many hundred fold over that offered by artificial insemination.

Tea

Tea production for 1989 was 150 million kg for South India and 538 million kg for North India, making a total of 680 million kg. For 1990 the target for South India is set at 165 million kg and for North India at 555 million kg, making a total of 720 million kg, which is attainable given good weather. The South reports that in the first quarter of 1990 it will have produced 35 million kg — 12 million kg more than last year's first quarter. The industry studies point to a growth rate of 10 gms annually in the per capita tea consumption, which places tea consumption in 1990 at 510 million kg, and which means that the supyly for exports will be the same as in 1989 — 210 million kg. The new government has taken an initiative in the Tea area. First, it has made production, rather than exports or domestic consumption as the thrust area and for this it has obtained from 25 top tea producing companies their annual production plan which is being monitored. Second, through the Tea Board it has identified 125 sick tea estates which it asked the tea industry to take over for rehabilitation. The industry asked for modifying existing laws to ensure smooth transfer of ownership, complete with title deeds, which are in most cases held by banks. Now there is talk of nationalising the sick estates which will be disastrous, given the miserable record of the state run Assam Tea Corporation, the West Bengal Tea Development Corporation and the Tea Trading Corporation. Under no circumstances should the government take over the sick estates, but use the banks, BIFR and change the laws for the industry to take over and run them.

Coffee

Coffee production in 1990-91 is expected to reach 2,25,000 tonnes which will be a 73 per cent increase over 1989-90 output of 1,30,000 tonnes. India's coffee exports in 1989-90 upto February 1990 was 1,22,496 tonnes valued at Rs. 366.11 crores compared to the export of 98,256 tonnes earning Rs. 337.72 crores in 1988-89. India's production is 2.4 per cent of world production and its export at 2 per cent

of global export. Domestic coffee consumption in 1990 is expected to be 65,000 tonnes, compared to 64,328 tonnes is 1989 and 55,560 tonnes in 1988-89. The International Coffee Agreement, of which India is signatory has been extended to September 1991 without the quota clauses. There is thus neither quotas nor price regulation. The 1990-91 budget favoured the coffee industry by reducing the excise duty from Rs. 78—105 per quintal depending on the variety to a flat Rs. 50 per quintal to help it against its complaints of excessive taxation, low crop, low price and high cost. Further in April the government approved the proposal of the Coffee Board for rescheduling the repayment of the crop loan of coffee growers for the 1989-90 season as a further relief to the present international price situation for coffee. This means that the coffee growers who availed of the loan for 1989-90 season are allowed to make the repayment, not as per existing rule of single instalment repayment but in two yearly instalments, that is to repay 60 per cent in 1989-90 and the balance in 1990-91.

Rubber

Rubber production which was 2,51,917 tonnes in 1988-89, 2,92,000 tonnes in 1989-90 is expected to be 3,27,000 tonnes in 1990-91. Domestic consumption was 3,34,000 tonnes in 1989-90 during which STC imported 20,810 and rubber manufactures imported 12,194 tonnes under export incentive scheme. Now that the lean season is on, the familiar problems faced by the rubber users of prices shooting up is being witnessed. In this connection there seems to be no connection between the fair price fixed by government which is Rs. 17,800 a tonne and the average market price of RMA—4 (ex Kottayam) of Rs. 21,270 a tonne and STC's release price of Rs. 24,870 a tonne. Either the government should revise the fair price upward or import enough to bring the STC/market price nearer that level. Given the foreign exchange shortage and the objective of self reliance the former is the preferred alternative. 80 per cent of the country's rubber is produced by small rubber growers who have been called upon by the Rubber Board to enhance their production by bringing additional areas under rubber cultivation (in 1989-90 10,000 hectares were brought in as new plantation and 5000 hectares as replantation), by popularisation of high yielding seeds and long supplying certain inputs at concessional rates. It has also provided financial assistance to co-operatives to improve processing and marketing of rubber. The Board is going in for a large scale expansion programme in the North East region and in non traditional areas by bringing in 65,000 hectares under rubber during VIII Plan. All this is needed but the real solution to closing the supply demand gap is the increased use of synthetic rubber which no one—not users, not industry and not government — seems to be facing.

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III Industrial Development in Tamil Nadu

Industrial Development

Given the fact that Tamil Nadu has been lagging in industrial development over the past decade as seen in the slow down of institutions of new industries and capital investment, the growing industrial sickness not only

among small units but medium and long units which have increased from 8 percent in mid 80s to 10 per cent in 1990, tying up Rs. 210.5 crores in unpaid debts, the flagging productivity as measured i) by value added per employee which in 1980-81 was Rs. 10,464 slightly higher than the all India Rs. 15,462 but which has fallen disastrously in 1988-89 at Rs. 20,878 against the all India Rs. 60,280; ii) by low level or fixed capital per employee which was Rs. 25,676 against the all India Rs. 38,756 in 1980-81 and the widening gap in 1988-89 of the state's average of Rs. 34,959 against the all India Rs. 54,300 ; iii) by gross output per factory at Rs. 64.46 lakhs against the all India Rs. 63.30 lakhs in 1980-81 which has slipped to Rs. 66.56 lakhs for the state against the all India Rs. 84.87 lakhs in 1988-89 and iv) by the fall in the number of employees per factory from 77 to 6877 while at the all India level it increased from 80 to 81 :—against all these and other indicators of the industrial downturn, it is sound that the government has in March/April announced policies which will reverse the trend, attracting both small and big industry through a) a series of tax concessions including a sales tax holiday for 9 years for new industries with an investment of more than Rs. 50 crores : b) the full sales tax waiver for 5 years upto a ceiling equivalent to the total capital investment in the project, available also to new units in the 3 industrial complexes run by SIPCOT as well as the 30 taluks identified as the most backward among the 125 notified backward taluks : c) the modification of existing tax deferral scheme for new and existing units in the other backward taluks and in industrial estates operated by government agencies other than SIPCOT : d) in the rest of the state the tax deferral scheme will now be available to non pioneer industries : and e) the liberalising of the pioneering industrial units concept, removing the 18 months limit and raising the interest free sales tax deferral from Rs. 2 to Rs. 3 crores. In addition to these incentives, the government has brought a new attitude and ability to long languishing and neglected projects, shortening the gestation period for new projects. Also the state governments' investment in industrial equity is rising, with 4 new joint sector projects about to start and 3 others under preparation. In the high tech area, the proposed software park in Madras, the new industrial growth centres aimed at reducing regional imbalances and the second major newsprint project in the state sector, all add to the new industrial vigour and momentum in the state. Against this, the flow of union investments into the state which has been negligible for the past decade and a half is now picking up with DAEs Rs. 200 crore, Zinconium and Titanium sponge plant at Chidambaranar district, the installation of the Rs. 400 crores hot rolling facilities at the Salem Steel Plan, the giant aromatic complex based on building blocks from Madras Refineries, the southern gas grid project and other industrial projects of NAPCO, TIDCO, ELCOT, TNPL which represent a fresh wind in the industrialisation of the state. To push this momentum forward the state level advisory committee on industrial policy has been reconstituted with chief minister as chairman and 20 of the state's top industrialists as members. It also has sectoral advisory committees for textiles, engineering, automobile ancillaries, electronic industries, chemicals and plastics, sugar and exports. All this

will make a heavy call on the state's power resources which needs to be *expanded*, used economically and optimally and with lower subsidies.

Salem, Ne yve li& ICF

The expansion of the Salem steel plant under consideration is in two stages. First, the existing fecilities will be expanded at a cost of Rs. 60 crores and in the second stage the hot rolling facilities will be installed costing Rs. 400 crores as noted above. Neyveli is demonstrating the gainful utilisation of flyash, a waste material thrown up by its thermal plants for construction activities. 10 year R & D in Neyveli has resulted in showing how cement can in part be replaced by flyash and other new techniques in making concrete a better, more economical and more versatile material for housing. The railway carriage and wagon building workshop of ICF at Perambur is being modernised at a cost of Rs. 50 crores. A new Rs. 5 crore Design and Development Centre is being set up as part of a major technological upgradation programme to improve riding comfort of rail passengers. ICF reports production of the first three I class AC conditioned coaches for the Shatavdi Express and the 3 first metre gauge AC chair cars for the Vaigai and Pallavan expresses. During 1989—90 it turned out 925 fully finished coaches in 20 different type of BG & MG & 958 shells.

HPF, MRL & MFL

Hindustan Photo Films reports diversifying its production into the area of magnetic media products, which include audio, and video computer tapes. Its licensed and installed coating capacity for various products is 1500 million running metres a year. Madras Refineries reports that it has submitted to the government new schemes including the petro chemical projects for Rs. 1872 crores and in addition will be using Rs. 537 crores for ongoing schemes from its own internal resources. The new schemes include the Rs. 150 crores lube expansion project, Rs. 129 crore Cauvery basin distillation plant and the Rs. 1356 crores Aromatic plant. Its production record is outstanding—even with one unit shut down for overhaul, its operating ratio was 98.39 per cent, its throughput 5510 million tonnes, turnover Rs. 1338 crores and net profit before tax 80.10 crores — all higher than those of the previous year. Madras Fertilisers reports that it has submitted to government for approval of a project to increase its production by one third of the present at a cost of Rs. 250 crores. Also it is preparing a DPR for a gas based unit at Cuddalore at a cost of Rs. 1000 crores.

ONGC

The Union Petroleum ministry has committed itself to a daily supply of one million cubic metres of gas from the Cauvery basin in 1994. Immediately TNEB is being supplied gas to operate the 10 MW gas turbines at Kovikalppam (Thanjavur district). The first 5 MW unit will be commissioned before March 1991 with 40,000 cubic metres of gas per day. ONGC also reports a breakthrough in converting the sour crude into sweet crude from 4 wells in Narimanam. From March 14 sweet oil started flowing from them. ONGC also reports that it is actively drilling in 7 locations in Thanjavur district on the inland

cauvery basin and 2 location in the offshore area and is hopeful of finding oil or gas in atleast 2 wells. A development well is being drilled in Naninalam structure at Thirukkadiyur and another at Vettikkadi in Thanjavur.

BHEL, Manali Petro Chemicals, TIDCO

BHEL reports that in 1989-90 it could use only 60 per cent of its installed capacity of 4000 MW thermal generation power equipment. It earned a profit of Rs. 40 crores despite outstanding dues from SEBs of Rs. 135 crores. It states that its order book is unsatisfactory with orders only for Rs. 1729 crores which would keep it going for 2 years. It looks to VIII Plan to secure orders, similar to the Rs. 31.89 crores order from Nuclear Power Corporation. ONGC and West Bokaro collieries. It has 2 order from TISCO's West Bokaro collieries for Rs. 25.25 crores. It reports signing a pact with a Soviet firm for a massive overhaul of old thermal sets at Neyveli at a cost of Rs. 250 crores. The Manali Petro Chemical complex houses i) Tamil Nadu Petro products which is a joint venture of SPIC and TIDCO producing linear alkeyl benzene (LAB) and heavy normal paraffin (HNP). It is functioning well : ii) the Manali Petro Chemicals Ltd., ; iii) UB petro products and vi) Eltex Petro chemicals, the last 3 having their equities heavily oversubscribed and will be going onstream between April and July : iv) Kothari's Sugars and chemicals has promoted the petro chemical plant for producing polybutenes at a cost of Rs. 18 crores. The feed stock for this unit as for Manali Petro chemicals will be supplied by Madras Refineries : v) the MRL's Mammoth project earlier described is also located here. TIDCO was criticises by the committee for Public undertakings for not planning an active role and is advised to adopt a more aggressive marketing approach so as to attract entrepreneurs with technical, financial and managerial capabilities. It has also been advised to be more careful in selecting projects and choosing promoters in order to improve its returns. In the last 24 years its investment of Rs. 54 crores has fetched a small Rs. 4 crore dividend income. In 10 of its companies, there were no activities. TIDCO should draw appropriate lessons from these failures.

Electronics, Cement, Sugar and Kothari Sugar and Chemicals

The state's electronic industry and trade is not doing well. The state government increase of the sales tax on the industry from 2 to 4 per cent has added to its problems. The industry is ofcourse up in arms against this hike, predicting a fall in production, a reversal of the growth in the industry of the last 2 years, and the more attractive situation of neighbouring states like AP & Karnataka with their lower tax rates. The state has made a sound beginning in silicon integrated circuits and materlais, upto electronics and electronic ceramics. What it lacks is an effective alliance between research institutes and in universities and the industry which must be forged. On the cement front, the cement units have geared themselves to meet the anticipated increase in demand in the coming years. Despite the hike in power and freight, they are improving their performance, with more units going in for modernisation to tone up operational efficiency. India Cements with a capacity of 3000 tonnes per day reports that it has completed its

modernisation in swtiching from wet to dry process at a cost of Rs. 100 crores. Chettinad Cements expects to increase its production from 4 lakh tonnes to 6 lakh tonnes and wants from the government a uniform cement policy. Madras Cement's balance sheet is good showing increased production and returns, and Dalmiah Cements has jumped from 4.66 to 6.02 lakh tonnes. Of the 2 state plants, the one at Alangulam is doing well but the Ariyalur plant is on the downward path. With complete decontrol as reported earlier there should be increased competition and some fall in prices. With regard to sugar, licenses were given to 14 sugar mills for expansion, of which 9 are in the cooperative or public sector. The total cane crushing capacity of the mills in the states has now become 86,900 tonnes a day, which is a jump from 59,000 tonnes in 1988-89. The Tamil Nadu Sugar Coporation is setting up 2 mills in the cooperative sector at Chidambaram and Cheyyar and as an alternative source of energy, they are developing two cogeneration plants, using the byproduct, bagassee, to produce energy. The plants at a cost of Rs. 500.10 lakh each will be the first in Asia and will receive a grant of Rs. 100 lakh from the union and state governments and a maintenance subsidy of Rs. 54.40 lakhs till the completion of the pay back period of 6 years. This will raise the production of molasses to 6.43 lakh tonnes on the basis of which the government is starting 2 distillaries at Salem and Amaravathi. Further a sugarcane development scheme is planned to facilitate the movement of cane from the fields to the factories. Kothari Sugars and Chemicals reports that it is setting up a Rs. 30 crore plant to manufacture para nitro chloro benezene and ortho nitro chloro benzene at Karaikal with Swiss and West German collaboration. It is scheduled to go into production in the last quarter of 1991.

Exports and Newsprint

Engineering exports from the South are reported to have increased sharply by 32.44 per cent at Rs. 228.49 crores in the first 9 months of 1989-90. In this, Tamil Nadu retained the premier position for the second year with a share of Rs. 106.26 crores which is an increase of 34 per cent over the previous year's Rs. 79 crores. In Tamil Nadu exports from Coimbatore have gone up sharply to Rs. 41 crores in the first 9 months of 1989-90. In this connection, the Exp-Imp Bank reports a good response in the southern region to the World Bank's export marketing scheme—100 proposals from Tamil Nadu, Karnataka and AP have been made to the bank which will bring in export earnings of Rs. 150 crores. The World Bank's scheme covers market research, minor product adoption, product nspection services, and training in export marketing. Finance available under the scheme in rupees upto a maximum of $ 1 million for each investment project in the form of a term loan for modernisation and capacity upgradation—which is attracting a response from the industries which satisfies the World Bank. Because of this it has launched its second tranche increasing the fund from $ 10 million in the first tranche to $ 47 million. This second scheme is also aimed at entering Europe in 1992. The World Bank is also interested in funding the Rs. 800 crore newsprint cum paper plant of the Tamil Nadu

government, the 200,000 tonne plant will have bagasse as its raw material on the lines of the Pagalur Plant (see vol XVI p 379).

Spinning mills, Handlooms and Effluent Treatment

The government reported to the Assembly that a programme to modernise 12 cooperative spinning mills this year at a cost of Rs. 31.8 crore is under study. This will increase production and profitability by improving quality. The project will be funded by Rs. 6.36 crore by the state and the balance by the World Bank. The Tamil Nadu subsidiary of NTC reports that it will reach its 1990-91 production target of Rs . 200 crores. It has made a net profit of Rs. 14 crores and a cash profit of Rs. 20 crores in 1989-90. It reports that 12 out of its 15 mill are now making profits. The Tamil Nadu NTC has been judged the best subsidiary for 1988-89 and Coimbatore has the best mill. This is a good and sound record from their poor state in 1974 when they were nationalised (see Vol. IV p. 581). A recent meeting of the handloom sector has favoured "phasing out the janatha cloth scheme" and to improve the condition of the weaver to replace it by value added products to be sold through private retail outlets. The Union government has assured weavers in the handloom sector a better deal in the VIII Plan and to sort out any anamoly in the textile policy. Meanwhile the state government has asked the union government to strictly enforce the order relating to the production of hank yarn by NTC and private spinning mills and stop them violating the condition that they should maintain a hank yarn production of 50 per cent, as one means of countering the shortage of hank yarn and the steep rise in its price. On effluent treatment, the union government has released a grant of Rs. 3.69 crores as its contribution for the Rs. 15 crore scheme to put up common effluent treatment plants in Vaniyambadi, Ambur, Perambur, Ranipet, Dindigul and Tiruchi. The state government has also made a similar grant of Rs. 3.69 crores which will begin to solve the long standing problem of environmental degradation caused by the tannery units (see Vol. XIX p. 79) even as they earn large foreign exchange. At Vaniyambadi a common treatment plant is nearing completion and will be on trial in July and in Ambur and the other places contracts and tenders have been awarded.

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IV. Education, Science and Health

Educational reforms

The government announced in the Assembly that it would start single teacher schools in the 439 habitations each with a population of more than 500 without primary schools. Both inhabitations below 500 people and in other habitations, the government announced that it would welcome

private sector establishing schools which is an important change from past policy of the government. With regard to the noon meal scheme, in addition to integrating various nutrition programme in the state, the government announced that it is considering transferring the scheme to the Panchayat unions. This calls for various administrative steps including distributing the Rs. 195 crores programme covering 85 lakhs children proportionately to the panchayat unions based on the noon meal centres and the children covered. Simultaneously, the responsibility of supervising the implementation and taking direct control over the staff will also be shifted to the local authorities, a shift which the noon meal staff are resisting. They are demanding to be treated as government employees, with holiday entitlements which is difficult to fit in with the fact that the noon meal is implemented round the year without any holiday. The Union government announces that the Navodaya Vidyalaya will be suspended pending a review. While the existing 280 Navodaya Vidyalayas will continue at a cost of Rs. 250 crores a year' no new Vidyalaya will be opened — both on grounds of cost and their poor performance. This project has been opposed by the Bulletin from the point of view of local conditions in each district and black. At the higher education level, the state government has decided to have a new cadre to be in charge of District Institutes of Education (DIET) and open recruitment is to be adopted to select suitable persons. The government has taken a decision to establish a separate directorate for teacher education, with a Director of Training and who will also be in charge of SCERT. The Academic Council of the Madras University has recommended to the Senate that a degree of Master of Arts of Tourist Management be instituted and that the degree of Bachelor of Business Administration be under the Faculty of management sciences. The Senate accepted these recommendations and has decided to establish M.Sc. in material science, Bachelor of Religions of India and Diploma of public Affairs and Diploma in Saivasiddhant. The government announced in the Legislative Assembly that the Mother Teresa womens university at Kodaikanal is to be shifted to Madras. This is good but the UGC decision to recognise it for grant for award of degrees is unsound as it goes against the basis for establishing the university-which is for research and advise on policy options regarding women's problems in law, in education, in employment, in political and civil status.

Literacy and Elementary education

The April issue of Financial Express quotes, "the results of the National Sample Survey 32th rounds 1977-78, 38th round 1983 and 43rd round 1987-88 as set forth in the following table :

The NSS survey shows that between 1977-78 and 1987-88 rural female literacy grew by 41 per cent, but this is half of that of urban women. On an average, in a group of 4 women, only one is literate in the village. Over this 10 year period male and female literacy has grown but the rate of increase is more among women. The table show that NSS data over estimates the literacy level, through the degree of overestimates is very small for rural females. This is

(Number of literates per 1000 persons by Sex and rural-urban residences)

(All India)

Year & Source	Rural		Urban	
	Male	Female	Male	Female
1977-78 (NSS 32nd round)	415	184	688	500
1981 (Census 1981)	408	180	658	478
1983 (NSS 38th round)	449	219	693	515
1987-88 (NSS 43rd round)	484	260	719	556

encouraging as it shows that at long last the battle against illiteracy is being won. But the finding of the working group of the ministry of education that in more than 2 lakh elementary class rooms, students are being taught by under qualified teachers is discouraging. The total number of elementary school teachers who do not have the minimum (higher secondary) qualification is a staggering 2.5 lakhs and most of them have at best passed the 8th class. Of the teacher, 36,000 are not even formally trained against the prescribed eligibility norm of a two year training course. There is need for a state by state survey to indentify the two categories of teachers who have no business to be teaching — those who do not have the requisite educational qualifications but are trained and those who posses neither the qualification nor training. The problem states are West Bengal, Assam, MP, Orissa, Bihar, Rajasthan, Maharashtra, Karnataka and J&K. These are also the states where there is widespread unemployment among teachers so that even as qualified and trained teachers are looking for jobs, the classes are being run by teachers who are not qualified. The report proposes liquidation of backlog of underqualified teachers by conducting correspondence courses for teachers with 7 to 10 years experience.

Technical education

A massive programme for skill development through upgradation of ITI with a Rs. 3 crore outlay is proposed. The project out lined in the budget presented to the Assembly provide for replacement of old machinery and installation of more machinery, establishment of 6 maintenance cells, expansion of 16 existing ITIs. Rs. 25 lakh is provided for two new ITIs for women. The programme is being aided by the World Bank. The government has decided that technical education — education in medical, engineering, law, agriculture and veterinary sciences will be free for candidates selected from the most backward classes and denotified communities, when neither parent or any brother has a university degree and

the family income is below Rs. 12,000 for SC & ST Rs. 15,000. The Academic Council of the Anna University has established 2 new PG courses in ceramic technology and construction engineering and management. The MGR Medical university to which all medical colleges in the state are affiliated has reintroduced the semester system at the request of the students. The government informed the Assembly that it has under consideration a proposal to start a college of dairy sciences as a constiutent of Tamil Nadu Veterinary and Agricultural Sciences university.

TV and Satellite

Tamil Nadu became the third state (after Maharashtra and AP) to have a full fledged TV regional service with the linking of all the transmitters and transponders in the state to provide a three and half hour programme for the Madras Doordarshan Kendra. The government reports that INSAT I-C is being repaired to see if its life can be prolonged as INSAT I-D will simply replace INSAT-IB with no extra time available.

Science

The special programmes evolved by the various scientific departments as part of the 35 point action plan (see Vol. XX P246 Vol. XX P. 19) some of which are already under implementation are being re oriented to benefit and directly address the "disadvantaged group" according to the statement made by the prime minister to the consultative committee of the Ministry of Science & Technology. The government states that a number of biotechnology based developmental programmes in health, agriculture, animal productivity, industrial micro biology and bio mass production relevant to the rural areas have been included in the action plan launched by the Department of Bioteechnology for 1990-95. The Action plan itself is sustained, coordinated and the integrated effort on the part of all scientific agencies and departments to bring about a visible improvement in rural areas through science and technology. A Rs. 1 crore centre for protein engineering and biomedical research funded by the Union government Department of Biotechnology is being set up at the Voluntary Health Service at Adyar. It will conduct basic studies on producing stable proteins by chemical modifications. It will begin its work in October. The Department of Atomic Energy is setting up a Rs. 200 crore Zirconium and Titanuim storage Plant in Chidambaram district, as reported earlier. Land acquisition is now complete and the project will become operational during the year. The Atomic Energy commission with its new chairman who is also Secretary to government DAE has been recommissioned with the Principal Secretary to PM, Cabinet Secretary, Director, BAR and Director IIS, Managing Director Nuclear Power Corporation, Finance Secretary and Mr. J. R. D. Tata as member.

Health

A study by the Operation Research Group of the country's 40 year old Family, Planning Programme finds that it has not produced results commensurate with the investments made in it. It traces reason to the fact that a national approach rather than a region specific approach has been made. In

the country with its very specific local and regional characteristics, a uniform national approach has not produced the desired results. As examples it refers to the couple protection rate (CPR) which in March 1988 was the lowest at 15 per cent in Barmer in Rajasthan and a high 71.8 per cent in Chandrapur in Maharashtra. The total marital fertility rate (TMFR) was a low 2 in Alleppy in Kerala and a high 7.1 in Bihar and Rajasthan. With such divergences a regional based approach to family planning will provide results, insights and a target specific interventions rather than a uniform approach. Dividing the country's 350 districts into 16 zones according to the efficiency levels of family planning efforts indicated by CPR and TMFR, the most backward zones are that made up of UP, MP and Rajasthan where the programme has not been effective and where the 117 hard core districts need urgent efforts on the basis of revised investments and infrastructure. In fact the study concludes that the future success of the country's family planning programme depends on what happens in these 117 districts where 27.2 per cent of the country's population lives. In 67 other districts of where 16.3 per cent of the population lives, the programme was effective but has not produced results in terms of fertility rates. These districts namely in Maharasthra and Gujarat need a focus on young couples and spacing methods and an intensification of media support. In the 4th region with 110 districts where 41 per cent of the population lives, namely South India, Maharashtra, Gujarat and Orissa, there was positive impact on fertility rate. Thus each region requires a district set of initiatives on communication strategies, family planning methods, infrastructure and resource allocation.

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V. Employment and Labour Relations

The employment profile in March / April is somewhat confusing. On the one hand, the Union government informed parliament that it proposes to provide jobs to 1 million youth in urban areas under the Nehru Rozgar Yojana which is to be recast on the basis of the recommendations of the state, emphasising the shelter upgradation scheme and urban micro enterprises along with the funds being allocated to state governments which will allow them to exercise flexibility in the allocation of funds, and not directly routing the funds to district magistrates or municipalities and town panchayats Rs. 160 crores is stated to be available for this year 1990-91. On the other hand with the rural employment being allocated for this year the same Rs. 2100 crores as last year, not only is the governments' pledge of implementing the right to work not possible, there may be a 20 to 25 per cent decrease in rural employment generation because the funds allocated are the same as last year which will have to allow for inflation and the new labour force entrants. The employment guarantee scheme promised by the National Front has been emas-

culated to a small operation in drought prone areas and even for that no funds have been provided in the year's budget. Beginning with Rs. 12.50 as weighted average of the minimum wages at the start of 1989-90, the average rose during the year to Rs. 15.21 at 31 March 1990 (a 17 per cent increase) and assuming a lower 10 per cent increase in 1990-91 to Rs. 16.75, only 775 million mandays will be generated this year compared to 900 million mandays last year. With the state promising to raise minimum wages, the increase may be 20-25 per cent which means generating less than 700 million mandays. It has been estimated that to generate 100 days employment for adult landless labour, migrant workers, marginal workers and marginal farmers 200 million mandays have to be created. Out of the rural population of 596 million in 1988-89, 226.5 million, that is 38 per cent living in 45.5 million households are poor. According to this estimate 21.85 million persons years —14.71 million male years and 7.14 million female years will be spent in unemployment and are available for work in rural areas. The financial express of April 19, 1990 reproduces an unemployment table derived from NSS rounds as under.

Number of unemployed per 1000 persons

Year	Approach	Unemployment rates			
		Rural		Urban	
		Male	Female	Male	Female
1983	Usual status (US)	21	14	59	69
(38th NSS round)	US adjusted)	14	7	51	49
	Current weekly	37	43	67	75
	Current daily	75	90	92	110
1987-88	Usual status (US)	28	35	61	85
(43rd NSS round)	US adjusted	18	24	52	62
	Current weekly	42	44	66	92
	Current daily	46	67	88	120

From this, it draws the conclusion that the 43rd round of NSS shows that underemployment, defined as the difference between unemployment rates according to the weekly status and the daily status of the work force is diminishing, and is disappearing from the rural male work force. (A person is employed according to the weekly status of or has work in any part of the week preceding the survey. He is employed according to the daily status

if he has work in all days of the week. The difference between the two unemployment rates gives the number of people who have work for only part of the week - which is the rate of underemployment). But unemployment rate measured by usual status has increased for all categories. Further, the rate of chronic' unemployment (given as usual status adjusted) has increased for all categories. Thus the number of unemployed has increased and the rate of unemployment has increased. On conditions of employment, there is a suggestion for a union law on basic wages, working conditions and social security aspect which is opposed by most states, which means the conditions of employment of unorganised labour will continue to be unsatisfactory. The Union is persisting with its plan to constitute a welfare board for construction labourers on which the builders association and government will be present in order inter alia to recruit labourers through the board. Also contemplated is legislation for farm labourers to guarantee employment throughout the year, ensure payment of proper wages, provident fund, health and education benefits. The 29th session of the Indian labour conference meeting in Delhi at the end of April a) emphasised implementation of labour related laws, particularly those concerning children, women and migrant labour, b) was unanimous about workers participation in management at all levels, being equal at shop floor and plant level and 25 per cent at board level and c) recommended the immediate withdrawal of the Trade Union and Industrial Disputes (Amendment) bill introduced in the Rajya Sabha in 1988 and its replacement by a New Trade Union and Industrial Relations Act which should be introduced in parliament on the basis of the specific proposals to be drawn up by a tripartite committee of 9 trade unions and 9 council of employers members with Mr. G. Ramanujam as Chairman. The need for a new bill is i) the major changes that have taken place in the industrial and labour scene, ii) to enable working out a proper definition of 'workmen' and 'industry' in regard to the workers participation in management and iii) to help maintain industrial peace while keeping up with the tempo of economic growth. The Secretary of the Committee with the in the Union labour ministry. The Committee is expected to submit its report in 3 months. Tamil Nadu government reported to the Assembly that the state suffered a record loss of 230, 160, 925 mandays in 1989 agains, 210, 230, 646 mondays last in 1988 due to 168 strikes (which declined from the previous year's 190) and 21 lock outs (which increased from 18 in 1988). Further while the loss of mondays due to strikes declined to 140,540,084 in 1989 against 160, 930, 193 in 1988, the loss due to lock outs doubled from 403, 003, 453 in 1988 to 806,200,841 in 1989. The January 1990 issue of Indian Labour Journal has a lead article on working girl children which points out that there are significant differences between the situation of the working girl and that of the working boy in the household, in agriculture and in unorganised industry. These differences are seen in the sex typing of work, the value imputed to such work and its influence on parental attitudes and access to education. Because of cultural restraint, girls in the unorganised sector are

spared with health hazards of the male child faced in mines, workshops or factories, but the same stereo types keep her at home helping the mother. When she is out of public sight, she is out of mind. Devalued as a child, denied equal access to education and often devoid of skills, she carries into her womenhood all the accumulated burden of the past. The challenge facing programmes, policy and the law is to offer the working girls the opportunity to grow, to change and to be free. In february 1990 issue of the Indian Labour Journal reported the results of a continuing survey on contract labour, in this issue Contract labourers employed in the rice milling industry who were 49 per cent of the total workforce in the mills were employed on regular and irregular jobs for 26 to 310 working days. 72 per cent were employed on a piece rate basis at varying levels, no DA was paid, they were working for 8 hours (47 per cent). and 7-7½ hours (53 per cent). There was no provision for a first aid box, canteen, rest room and housing. 34 per cent had provision in case of accident. 383 workers were organised in 10 registered trade unions, of which 7 were recognised by the managements and located in West Bengal.

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VI. Other Items

Indian Railways and Repatriates Council

There was a meeting of MPs, MLAs and planners on a paper on the status of Indian railways issued by Minister of Railways. There was a general *welcome at the innovation on* the paper represented and a request that it be repeated every year. The large cost in dealing with the backlog of outdated wagons, and *outworn railtracks which* is a priority, was noted with the demand for new lines and changing MG into BG being of lower priority. There was a meeting of the council dealing with Ceylon Repatriates which discussed and established criteria for selection from them for the award of undergraduate scholarships. There was also agreement that the government of Tamil Nadu should be approached to reserve seats in the professional colleges for repatriates as is being done for refugees.

TNSCST

In March/April there were three meetings of the Tamil Nadu State Council of Science & Technology. In the second week of March, there was a meeting of the Executive Committee of the Council which reviewed ongoing research projects, approved new ones, approved travel grants for young scientists to attend International conference and noted with satisfaction the events well and carefully planned by over 15 universities and non government organisations for popularising of science. There followed in the last week of March, the meeting of the Council chaired by its President, the Minister of Education which reviewed

the recommendations and decisions of the Executive Committee, decided that the popularisation of science activities Board should be a year long series of activities and approved the programme and budget of the council for 1990-91.

State Planning Commission

There were 9 meetings of the State Planning Commission in March/April on March 16 & 30 and April 6, 18, 19, 20, 21, 22 & 23 which were devoted to review of the draft chapters of state's VIII Plan. The question of the resources for the plan period is to be settled at a meeting of the Commission in May.

International Literacy Year

A meeting of the colleges, high school, voluntary agencies and government departments was held in mid March at which the decisions were made to make Madras city which has 60 per cent of its 40 lakh population illiterate, totaly literate in 1990 the International Literacy Year. For this each college, school, voluntary body and government department decided that it will take responsibility for making the people in a certain section of the city literate during the year. The State Resource Centre will help with literacy kits and training of the instructors for this mass programme. Second, there was a meeting of Arivoli Iyakkam organisers who finalised the programme to make 5 district in the state completely literate and presented to the government the project which will cost Rs. 12 crores for this 5 district programme — to be shared equally between the union and the state governments. There was a meeting of the governing board of the State Resource Centre which reviewed the participation of the centre in the Madras city and 5 district literacy project and made decisions on the work to be done. The board also reviewed the budget for the current year, approved the transfer of the headquarters to a new location and the sharing of the costs with TNBCE of the cost annual conference There followed a meeting of the executive committee of the Tamil Nadu Board of Continuing Education at which the follow up of the actions on the recommendations of the annual conference was reviewed and approved. The preparations for this year's Annual Conference, which is important both because it is the Triennal Annual Conference when the officers will be elected and because it is the means of carrying further forward of the International Literacy Year, were launched. At the end of April there was the second meeting of the UGC standing committee on literacy at which the major decision was means of ensuring the participation of universities and colleges in the country in the Mass Functional Literacy Programme. In this connection, the offer of the UGC to set apart one of its one house education TV = programmes to broadcast the plan for the mass functional literacy by the chairman of UGC inviting the participation of the universities and colleges was accepted. UGC would backup this effort providing the institutions with the necessary finances. The literacy programme, for women presented to the committee was approved and follow up decision made, the need to intensify the non formal education programme for school dropouts with funds from UGC and the government was recommended and universities were once more urged to make their adult education department statutory bodies of the universities.

RDI & IIC

There was a meeting of the Board of Directors of Readers Digest at which the activities of the Digest were reviewed and the way in which the budget for the current year is progressing satisfactorily according to plan was noted with satisfaction. In IIC, there was a meeting of the panel in March for discussion of automobiles and ancillaries which made the point that the industry is going to face a declining demand in the future drastically and therefore its exports should be provided and augmented. There was a meeting of the Board of Trustees also in March to prepare for the Annual General Body and the questions about the Centres facilities, accomodation and receiving endowments from outside raised by members were discussed. The general body approved the Director's report, the implementation of the 1989-90 budget and the proposed programme and budget for 1990-91. In April there was a panel discussion on the Union Budget - 1990-91, when its strong points and its many gaps and weak points were brought up.

April 18

The 80th birthday of the Bulletin editor on April 18 was celebrated with a tea in the Institute and public meeting at the Institute at which the Governor spoke. On this occasion, two impressive publications dealing with his life and his main preoccupation with regard to Development were presented to him This was followed on April 19 by a meeting of University And Adult Education members (SRC & TNBCE) when under the presidency of Dr. Rajammal Devadoss some 18 persons spoke about him and various impressive presentations emphasising his contributions to Adult Education and literacy was made. These were followed by a function on April 20 at the India International Centre, New Delhi at which 3 senior members—Dharmavira, Tarlok Singh and Kapula Vatsayana spoke about him. On the following day, April 21, the Council of Social Development organised a function around the Social Justice at which Mr. Ramvilas Paswan, Mr. Krishnan and Mr. J. D. Sethi spoke felicitating the editer and recalling his contributions to the cause of Social Justice.

CL Mehta lecture and Conference of Economists

The Annual CL Mehta lecture organised by Institute of Financial Management and Research was held at the end of April when Dr. Swaminathan spoke on the Right to Work. He pointed out that through the right was a formidable one it could be attained by executing well thought out specific employment programme. The Indian Economic Association Trust organised a conference of economists which was attended by some 50 economists at which there was a round up of current state of the art and future perspective with regard to a) planning and development, b) agricultural demand, c) industry needs and potential, d) balance of payments problems and e) employment perspective. The results are to appear in a publication.

First Article

A paper on Reservations: Promise and Performance by Ghanshyam Shah presented at the March Workshop on Backward classes and Reservations appears as the first article.

Second Article

A report on the above Workshop, appears as the second article.

M I D S News

The annual Ph. D. Scholars and guides meeting was held from 18th to 21st April, 1990. It was attended by 39 Ph.D. scholars from different parts of the State. In addition, 7 recognised Ph.D Guides from various universities and colleges of Tamilnadu also participated.

The resource persons were Prof. D. Narasimha Reddy of Central University, Hyderabad ; Dr. Maithreyi Krishnaraj of Research Centle for Women's Studies, S. N. D. T. University, Bombay ; and Prof. Pradip Maiti of Indian Statisticai Institute, Calcutta. Each of them gave two lectures. Prof. Narasimha Reddy discussed "Methodologies in Economics". Dr. Maithreyi Krishnaraj, "Methodologies in the Area of women Studies", and Dr. Pradip Maity "Poverty Studies in India".

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The Institute celebrated the 80th birthday of Dr. Malcolm S. Adiseshiah, Founder of the Institute and Chairman of its Governing body, on 18th April. At a public function held in the evening at the premises of the Institute, with the then Governor of the State, Dr. P. C. Alexander presiding, tributes were paid to Dr. Adiseshiah's contributions as economist, educationist, philanthropist and as a champion of many worthwhile social causes.

A volume with the title **Economy, Society and Development** in which scholars and public figures from different parts of the country and from abroad had contributed essays and reflections in honour of Dr. Adiseshiah was handed over to him by Dr. A. Gnanam, Vice Chancellor of the Madras University. The volume is to be brought out by Sage Publications.

Members of the Institute and all who had assembled for the meeting wished Dr. Adiseshiah many more years of fruitful work and service.

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Dr. Pulapre Balakrishnan has joined the Institute as Fellow on 25th April.

Dr. Nasir Tyadji was appointed Professor (RBI Chair) with effect from 7th May.

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Mr. S. Guhan has terminated his contract appointment with the Government of Tamilnadu as Adviser to the Chief Minister and rejoined the Institute on 4th June in order to return to academic pursuits.

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Dr. Paul P. Appasamy attended a Seminar on "The Economies of the Sustainable Use of Forest Resources" organised by the Centre for Science and Environment. New Delhi from 2nd to 4th April and presented a paper on micro-watershed management.

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Dr. S. Sivarajasingham and Dr. Paul P. Appasamy attended a Project Design Workshop on "Coastal Vegetation Management and Dryland Forestry organised by the Society for Social Forestry Research and Development, Tamilnadu and the Society for Promotion of Wastelands Development on 20th and 21st April at Madras. They gave a presentation on "Sustainable Agricultural Development through Watershed Management in Dry Areas of Tamilnadu".

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Dr. R. Hema attended a conference (PACER—Programme for Acceleration of Commercial Energy Research) on "Role of Innovative Technologies and Approaches for India's Power Sector" organised by Tata Energy Research Institute and Power Finance Corporation between 24th and 26th April at New Delhi, and presented a paper "Pricing Options for the Peak Load Problem in Indian Electric Utilities".

She was also the co-author of the Paper "Time-of-the-day Pricing and Load management : The Indian Experience" sent for the Sixth National Power Systems Conference, being organised by III, Bombay and IGIDR, Bombay between 4th and 6th June.

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Dr. Nasir Tyabji presented a paper on "Small Industry in India-Rationale, Role and Prospects" at the Seminar on "Small Industry and Entrepreneurial Development Lessons of the Past Two Decades and Guidelines for the Future" organised by the University of Poona Science and Technology Park, between 7th and 9th June.

* * * *

The annual Interdisciplinary Research Methodology Workshop was held at the Centre for Development Studies, Trivandrum from 6th to 9th June and was attended by participants representing the diciplines of Economics, Sociology, Forestry, Ecology, Management, Geomorphology, Soil Science Geography and Urban Planning. This workshop was the second in the series on "Management of Renewable Resources" and had as its theme, the management of land resources. Eleven papers were presented at the workshop. The topics discussed at the workshop included common property land, urban land, watershed management, mapping of land resources, and land reforms. The papers and proceedings will be published in due course.

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Dr. Wang Huaxin, Senior Research Fellow along with Dr. Yuan Yongkang, Associate Professor, Institute of Rural Development, Chinese Academy of Social Sciences visited the Institute from 9th till 16th June and gave a talk on "Rural Enterprises and Urbanisation and Agricultural Product Prices in China" at the Institute on 13th June.

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March Workshop paper 3

Reservations: Promise and Performance

Ghanshyam Shah

Senior Fellow,

Centre for Social Studies, Surat

At the outset we should differentiate between the rhetoric and reality involved in the issue of the reservations for backward class/castes. While participating in the discussions in the Constituent Assembly on the issue of reservations, some leading members expressed their views that the objective of the reservations were to bring the backward classes on par with the forward classes and thereby to bring an egalitarian social order. This was a wishful thinking. The corresponding provisions, necessary to reconstruct an egalitarian social order, are absent in the Constitution. They are at the most relegated to the Directive Principles. Reservations were incorporated in the Constitution, as I have argued elsewhere (Shah 1989, 1990), as a result of the pressures built up by the deprived communities, rather than as part of an overall strategy for building an egalitarian social order.

Though it is truism, it needs to be said again and again, that the performance on the reservation front has to be evaluated in context of the overall political and economic situation. India has followed the path of capitalist development since Independence. The state has invested large resources during the last four decades in developing infrastructure so as to facilitate industrial and agricultural production. To some extent the agrarian production relationships have changed but precapitalist relationship and feudal forms of exploitation still persist. Agricultural production of food and non-food crops has increased, but the growth has not been stable. Industrial production has increased five fold between 1951 and 1980. The

total gross national product has doubled during the same period. However, industrial growth has decelerated, if not stagnated, after the mid-1960s. The tertiary sector, on the other hand, has grown faster than the primary and secondary sectors. As a result, the size of the middle class has expanded several folds in the last four decades. On the whole, economic development has not been impressive – some economists called it retarded or sluggish. Consequently, work opportunities for the population is 'regularly shrinking', and India still remains one of the poorest countries in the world.

Backward classes have both benefited and suffered from the advantages and limitations generated by such sluggish capitalist development. Of course, being on the periphery they are in a more disadvantageous position than those who are in the centre, i.e. the upper caste Hindus.

II

Profile of the Backward Classes

The backward classes/castes can be divided into three categories: (i) the Scheduled Castes (SCs); (ii) the Scheduled Tribes (STs) and (iii) other backward castes or communities (OBCs). All of them together constitute more than 50% of the population of the country.

The Scheduled Castes, popularly known as *Dalits* or Harijans, occupy the lowest rank in the Hindu caste system. They are often called *ati-sudras* or *avarnas*, whose place is outside the Chaturvarna system, and whose touch is considered to be polluting. Before Independence they suffered from several restrictions on their food habits, dress and behaviour. In many villages they are still not allowed to fetch water from the common village well. They are mostly small and marginal farmers or agricultural labourers. They constitute 14% of the country's population, and are found in most of the states in varying proportions. Punjab and Himachal Pradesh with 27% and 25% of their population come first in the SCs list.

The Scheduled Tribes are known as Adivasis, aboriginals, animists, Raniparajs (those living in the midst of wild animals), Vanajatis (those living in the forests), Girijans (hill people), Kaliparajs (black people) or tribals. They do not suffer from all the sociocultural stigmas attached to the SCs. Nevertheless, they are often looked down upon by the caste Hindus as 'primitive' and 'feeble-minded'. Their means of livelihood are agriculture, hunting, collecting forest goods and all kinds of manual labour. Their land is rocky and barren and most of them are not familiar with modern methods of agriculture. On the whole, they belong to the lowest rung of the economic ladder and have been exploited by the non- tribal landlords, moneylenders and forest contractors. They constitute seven per cent of the Indian population. Unlike the SCs, they are mostly concentrated in a few states like Nagaland, Meghalaya and Mizoram, where they constitute more than 80% of the total population. They also

form a large proportion of the population in Manipur, Tripura, Madhya Pradesh and Gujarat.

The SCs and STs are divided among themselves into a large number of social groups. There are more than one thousand groups in the country which are identified as SCs or STs. The various SCs also form a hierarchy with the status distinction of 'high' and 'low'. Though the STs are by and large free from the rigid caste hierarchy, they also have status differentiations, Several tribes have their own dialects and they are separated from one another because of social and economic reasons.

The number of the Other Backward Castes/Classes (OBCs) varies from state to state. According to the Second Backward Classes Commission Report, Karnataka has the largest number (204). All the backward castes recognised by the different states do not have the same status in the caste hierarchy. Their economic position also varies vastly. The Yadavas and Kurmis in Bihar, and the Vokkaligas and Lingayats in karnataka can be considered as landed gentry with political dominance, though their level of education is lower than that of the upper castes. But many of the other backward castes are oppressed and the majority of their members live below the subsistence level. Hence the OBCs can be divided into two categories: upper OBCs and lower OBCs.

On the whole, the deprived communities are economically poor. Most of their members do not own enough income-generating resources for meeting their basic needs. But this generalisation does not apply to *all* the members of the deprived communities. A small section of the backward castes owns property and uses it to expropriate surplus from others. Three per cent of the SCs and 15% of the OBCs, as against 39% of the Brahmins in the four states of UP, Andhra, Gujarat and West Bengal are big landlords or top level professionals (Bhatt 1975). In Gujarat, 11% of the Koli households, belonging to the OBCs own more than 16 acres of land each. Between 2% and 5% of the ST households in different states are well-off cultivators (Raj 1961; Shah 1985a). Thus economic differentiations prevail among the deprived communities.

III

Constitutional Provisions

On the eve of Independence, the sub-continent was divided into India and Pakistan, as the leaders of the Muslim minority succeeded in creating a feeling among their followers that they would lose their identity in independent India under the dominance of the Hindus who constituted the majority. Some of the tribes in the North-East frontier regions expressed similar apprehensions. The tribal political leaders of Chhota Nagpur region in Bihar demanded a separate electorate for the tribals. A small section of the tribals in Gujarat also asked for a separate state for them outside the Indian

Union. At the same time, the SCs were also demanding a separate electorate. The ruling elite felt that separate electorates would strengthen separatist identity of the SCs, which would endanger the unity of the country. Thus, in order to give a 'fair deal' to deprived sections so as to improve their socio-economic condition and satisfy the political aspirations of their elite, the Constituent Assembly evolved the strategy of reservations. This was a political decision. D.N. Sandanshiv a jurist belonging to the SCs observes that "In 1947, on Independence of India, Hindus got India, Muslims got Pakistan and the Scheduled Castes and the Scheduled Tribes got reservations." (1986:3). There is not much exaggeration in this statement.

The Constitution provides certain special provisions for the SCs and STs to protect their educational and economic interests. These provisions are known as protective discrimination. They are related to (i) political reservations (Articles 330 and 332); (ii) reservation of seats in educational institutions (Articles 15(4) and 29); and (iii) reservation of government jobs (Articles 16(4), 320(4), 333 and 335). The Constitution provides equality before law and positive legal measures against the disabilities based on birth (Articles 15(2); 29(2), 35; 244 and 371(A)). By the various Acts of Parliament, these provisions received legal status.

The President, by promulgating the ordinances in 1950, identified the SCs and STs. But this was not the case for the other Backward Classes, though the Constitution uses the term 'Backward Classes' or 'weaker sections'. While discussing Draft Article 10(3), several members pointed out that the term 'backward' was vague, loose and idefinite. However, Article 340 provides that the President may by order appoint a Commission to investigate the conditions of socially and educationally backward classes within the territory of India.

The ruling elite were not in a hurry at that time to define and identify the backward classes so as to make special provisions for them. Except in South India, there was no pressure from the OBCs for reservations. In fact, as a result of the non-Brahmin movement, the Madras government granted certain quotas for different communities in 1927. Later on the quota for the OBCs and SCs was increased by a government order in 1947. However, this order, known as the Communal G.O., was struck down by the Supreme Court in 1950. Periyar E.V. Ramaswamy and his party, the Dravida Kazhagam, launched an agitation against the quashing of the Communal G.O. as it affected the prospects of the backward classes. The agitation spread throughout Tamilnadu. It was so "severe and persistent, that the Government of India under the Prime Ministership of Jawaharlal Nehru, within two months of the Supreme Court's decision moved the First Amendment to the Constitution." (Venkataswamy 1986: 21). The amendment provided for, *inter alia*, the

powers of the state to make special provisions for the advance- ment of the socially and educationally backward classes of citizens or for the scheduled castes and scheduled tribes. A new clause - clause (4) - was incorpo- rated in Article 15. The Madras Government then passed an–order–in–1951 providing reser- vations to the backward classes and the SCs.

The Government of India appointed the first Backward Classes Commission in 1953. It submitted its report in 1955. The Commission identified 2,399 castes as socially and educationally backward. The government did not accept the recommendations of the Commission on the ground that it had not applied any objective tests for identifying the backward classes. However, by the 1960s as Naxalbari and other land-grab movements began to challenge the local power structure, the bourgeoisie parties found it difficult to withstand the pressures built up by the deprived and exploited classes. The Socialist Party in the Hindi speaking belt directly appealed to the OBCs by stressing their economic interests. The monopoly of the Congress power was challenged in 1967 and it lost power in many of the north Indian states. The Congress also began to woo the backward classes. The Congress manifesto of 1971 declared: " The Congress is pledged to promote with special care the educational, employment and economic interests of the weaker sections of the people particularly the scheduled castes, the scheduled tribes and the backward classes."

In the early seventies the various state governments appointed Socially and Educationally Backward Classes (SEBCs) Commissions. The Commissions were asked to enquire into the conditions of various groups and to report which sections of society should be treated as the OBCs. They were also asked to recommend what special treatment and/or concessions similar to those that were granted to the SCs and STs should be bestowed upon the OBCs. All these Commissions found it difficult to evolve criteria to determine social backwardness. No rigorous methodology or framework has been evolved. That left enough scope for arbitrariness. And the arbitrariness has been, more often than not, guided by political exigencies. On the basis of the Commissions reports, the state governments considered certain castes as OBCs and granted them reservations in educational institutions and government jobs.

At the national level, the second Backward Classes Commission, under the Chairmanship of B.P. Mandal, was appointed by the Janata government in 1978. But the Janata government lost power before the Commission completed its report. The Congress government not only gave two extensions but extended all support and co-operation so that the Commission could complete its work. The

Commission submitted its report in December 1980. It was placed before the Parliament after two years in April 1982 as the backward class members of the Parliament protested against the delay and held a *Dharna* in front of the Parliament House. The Congress government did not take any decision on the Mandal Commission Report. So far, there is no central government policy on the OBCs. But the different states have evolved their policy on them.

IV

Political Reservations and Co-option of SCs and STs

As mentioned above, Articles 330 and 332 provide for the reservation of seats for the SCs and STs in the Lok Sabha and Legislative Assemblies of the states. Initially, the reservations were for ten years, but they have been periodically extended. There are 78 and 33 seats in the Parliament and 540 and 282 seats in the Assemblies for the SCs and STs respectively.

Certain constituencies were 'double member' constituencies in the first two elections. In such constituencies, one seat was reserved for either SCs or STs and another seat was generally meant for anyone, SCs/STs or non-SCs/STs. Consequently, the candidates belonging to the SCs/STs and non-SCs/STs were required to work together foreach other. This provided more opportunities for SC/ST candidates to get elected from the general constituencies. "Having (by their own estimate) done most of the work, spent most of the money, and mobilised most of the vote for the party ticket, non-scheduled caste participants faced the prospect of being edged out of the contest by scheduled caste block voting. If untouchables gave both of their votes to Scheduled caste candidates regardless of party affiliation, a non-untouchable candidate might be defeated for the general seat by his own party running mate". (Dushkin 1972: 192). V.V. Giri, for instance,was defeated in 1959 election by an ST candidate. As the system was disadvantageous to the non-SC/ST candidates, it was abolished in 1961.

The parties give tickets to those aspirant SC/ST politicians who belong to propertied classes of these communities–owining at least more than five acres of land or engaged in business or are educated white-collar employees. And in course of time, a section of professional politicians have emerged in these communities. They earn their livelihood by occupying political positions in various organisations and getting a handsome honorarium. A study of the SC/ST members of the Parliament in the three Lok Sabhas of 1962, 1969 and 1971 shows that they belong to the upper stratum of their communities. They are educated and engaged in agriculture, business or 'intellectual professions' like law. A study of the SC elite in Bihar, conducted in 1971-72, shows that the elite belong to the privileged strata. The gap between the

elite and the mass has become wide. One finds a similar situation among the SC/ST elite even at the district level in Gujarat. A very insignificant number(less than 10%) of the SC/ST party leaders at the district level were small and marginal farmers or agricultural labourers. A vast majority of them were either middle or rich farmers or self-employed workers (Shah 1975).

Though the SC/ST political leaders have secured legislative positions, they cannot secure effective power to express the problems of their communities, even if they want to. Any effort in that direction by the SC/ST elite meets with the displeasure of the party bosses, which results in the dispossession of political positions. The SC/ST party leaders have proved very weak in getting implemented the laws enacted for the benefits of their people. A number of studies related to legislative behaviour of the SC/ST legislators show that the legislators do not actively participate in the debate in the State Assemblies or Parliament on issues concerning the deprived communities. Despite the constitutional directive "to make laws prescribing punishment" for acts contravening fundamental rights related to the disabilities arising out of untouchability the SC members of Parliament could not effectively pressurise the Parliament to pass the Untouchability (Offences) Act without delay. The SC MLAs did not use their political power for the effective implementation of the Acts. Even a Chief Minister belonging to the SCs/STs could do very little in providing protection to the poor members of their own communities against the brutality of landlords and the police.

The SC/ST MLAs and MPs do use their numerical strength as a block power, as a balancing force between two rival factions within the party. In return for their support to one or the other faction, they bargain for political positions in the Cabinet or various committees or statutory bodies. But they cannot act effectively when atrocities are committed against the members of their communities; nor do they pressurise the administration to implement even the Minimum Wages Act.

V

Educational and Job Reservations

The Constitution, vide Article 45, directs the State to enforce universal free elementary education for all children in the age group of 6 to 14 years within ten years, that is, by 1960. This was reiterated in 1968 by the Resolution on the National Policy on Education. But, this directive still remains an unfulfilled dream. All the children who attend school for the first year do not complete primary education, dropping out at some stage or another. According to the data of the Ministry of Education, 67% children dropped out between 1964-65 and 1968-69. The dropout rate has declined slightly after a decade. It was 63% between 1973-74 and 1977-78. Various studies attribute the non-attendance or early drop-out to several factors. They include non-existence school facilities,

and medium of instruction in an alien language. The most important reason for drop-out is the poverty of the family. In a poor family, a child of five or six years is an addition to the labour force, and adds to the family income. Generally, a girl looks after younger siblings and does household work when the parents go to work. Boys work as agricultural labourers, domestic servants, cowherds or often as firewood collectors. The rate of dropout and non-attendance is very high among the deprived communities.

Of those who get primary education among the deprived communities, only a few reach the middle and fewer reach the high school so as to get qualified for university education. I have shown elsewhere that the upper strata of the STs have taken a greater advantage of education than the lower (Shah .1985b). There is no reason to expect a different pattern among the SCs and the OBCs.

Those among the deprived communities who qualify for higher education, where reserved seats are available, do not have an easy time. Under Articles 15(4) and 29, the Union Ministry of Education has issued instructions to all the State Governments/Union territories as well as to the Universities to reserve 20% of seats in all educational and technical institutions for SC-ST students. Several state governments have, in course of time, made similar provisions for students belonging to the OBCs. Qualifications for their admission are also relaxed. Though most institutions implement these instructions of the government regarding the reserved quota, a few institutions still defy them completely. Despite relaxation in the matter of qualifications, the quota reserved for the deprived communities is not yet fully utilised in most institutions.

Out of the total number of 92,775 students enrolled in under-graduate medical courses in 1977-78 in all states, only 7,7613 and 1,731 students that is 8.4% and 1.9% belonged to the SCs and STs respectively. The co-efficient of equality for these communities was 56 and 25 respectively. And many of those who succeeded in getting admission are not able to complete the course in time. For example, out of 42 SC students admitted in the Jawaharlal Nehru Medical College, Raipur, during the period 1964-1973, four students took four and a half years (normal time) to pass the final examination, six students took 5 to 6 years, another six took 6 to 7 years, seven students took as many as 7 to 8 years, while three students were rusticated and migrated to other colleges. One finds a similar story for the ST students. And it is repeated in most colleges. In order to improve the situation, various committees and the Commissioner for SCs and STs suggested that intensive coaching be provided for the SC/ST/OBC students in medical colleges and the various Indian Institutes of Technology. This has made some difference in their performance but sustained efforts on the part of the upper caste teachers are rare. On the whole, the situation is dim at the

post-graduate level. Only a handful of the students from the deprived communities in the country have succeeded in obtaining post-graduate education in medicine and engineering.

The educational system that has been evolved in the post-independence period is unegalitarian like the social and economic systems. A majority from the deprived strata could not even enter primary school. A small section of them take education in government run institutions which do not have adequate facilities. Many drop out, and a few who struggle hard to get qualified for higher education face tough competition from those who are trained in the better managed elite institutions. "Even if a child from the poorer social groups has the same attainments as that of a child from the privileged groups (and this really involves a much larger effort), he is still at a disadvantage vis-a-vis his well-to-do rival in a society where 'who knows who' is so important. The net result of all these factors is that, our inegalitarian and hierarchical educational system leads to an inegalitarian and hierarchical social system, just as the inegalitarian educational system arose, in the first instance, from the inegalitarian social system itself." (Citizens for Democracy 1978:15).

Those among the SCs/STs who can get secondary and higher education aspire for white-collar jobs. Under Articles 16(4), 320(4) and 333 of the Constitution, 15% and 7% of the positions are reserved at all levels in the government and public sectors for the SCs and STs. Various state governments have also made provisions of reservations varying from 10 to 50% for the OBCs in state government jobs.

Though some progress in obtaining government jobs has been made during the last thirty years, the deprived communities have still a long way to go before they can occupy all the positions reserved for them at the upper echelons of the administration. The position of SC/ST employees at various levels in the Central Government between 1959 and 1983 shows that only 1.2% of the positions of class I of the Central Government were occupied by SCs in 1959. Their proportion had increased to 6.7% by 1983. The position of STs has increased from 0.2% to 1.4% during the last two decades. However, they occupy many lower-level positions. A similar situation prevails in the state governments and public sectors. They have very little scope in the private sector where there is no reservation for them.

The reserved positions go unfilled not necessarily because the SC/ST/OBC candidates with minimum qualifications are not available. More often than not, it is the prejudices of the recruiting authorities against the candidates that operate against their interests. They hesitate, and if possible, delay the implementation of the government orders regarding recruitment or promotion of SCs/STs. Later, many of the positions are dereserved on one pretext or another. Information regarding

the number of persons belonging to the OBCs occupying positions in the state governments is not available. According to the data compiled by the Second Backward Classes Commission (1980) 12.6% positions in the Central Government are occupied by the OBCs.

Reservation has certainly absorbed to some extent the educated SCs and STs in the government jobs. But this is only to *some extent*. Even very sincere implementation of the reservation policy will not be able to ensure the absorption of all the qualified persons from these communities. The reason is simple: The present economy is unable to provide employment to all the qualified persons. Educated unemployment has been rising since 1950. There were 3.29 lakh educated unemployed persons on the Live Register in 1951. Their number has increased to 200.45 lakhs in 1981. Similarly, the number of educated unemployed SC/ST persons is far more than the available reserved jobs for them. As many as 16,61,081 SC and 4,08,123 ST candidates were on the Live Register seeking employment at the end of 1979.

However, a small section of the deprived communities who have capital in the form of large land and/or marketable skills, has taken advantage of reservations and 'development' programmes. They have improved their economic condition. The rich and middle peasants have taken advantages of the inputs for agricultural growth. A few have started business and a few others have become entrepreneurs. The SC/ST entrepreneurs established, respectively 4,620 and 1,423 small industrial units by the end of 1979. Among the OBCs the number of entrepreneurs is large.

VI

Overview

The reservation policy has been evolved primarily for political exigency to win elections and arrest the rising aspirations and consequent unrest among the deprived classes. It has not been evolved out of any systematic ideological perspective and strategy for building a new social order through parliamentary democracy. With its overt emphasis on 'modernisation' and 'growth' without disturbing the 'existing structure' which covertly facilitates capitalist development, the top liberal leaders condemn the caste system. Nehru believed that caste and all that goes with it "are wholly incompatible, reactionary, restrictive and are barriers to progress". The Congress sessions occasionally passed resolutions for eradicating the caste system in the 1950s. Such concern even at the level of perception declined conspicuously in the seventies as the liberal leaders lost influence on the non-left parties.

There is no aversion to using money and muscle power to win elections even by intimidating the voters. Caste and communal sentiments are used by all parties in election campaigns without any inhibition. And this is considered

unavoidable for winning elections. Consequently, despite industrialisation and the Green Revolution (though limited and slow), which have done their job in changing the nature of the caste structure by eroding its basic tenets, caste solidarity has hardened.

In the 1950s, liberal leaders did attack the caste system in general and casetist attitude in particular, though they did not evolve an effective strategy to weaken the caste structure. At the most, they thought that caste would be abolished by derecognising it in public institutions. The Congress Working Committee was of the view in 1956 that in order to abolish the caste system, "the Government be requested to discourage considerations of caste in Census, in educational institutions, in Government offices and when selecting candidates for appointment by the Public Service Commission" (Zaidi Vol.XV, 1981:388). But except abolishing caste enumeration in the census, no effective mechanism has been developed to attain the objective.

Some liberal leaders intervened during the early fifties here and there and tried to control the non-secular forces. But they performed their role as interventionists for a brief period. They slowly lost grip over the party, and the new band of professional politicians from the upper as well as the backward castes have emerged and they control the party. Their main concern is to capture power by hook or by crook for personal ends rather than for social transformation or even for a better capitalist order. Electoral politics and manipulative tactics for power have certainly brought changes including increasing role of the backward castes in politics. But this change is the result of electoral politics rather than social engineering for social transformation for the purpose of achieving secularism and egalitarianism.

The reservations in jobs and educational institutions, as well as the co-option of the political elite of the backward communities in the party and the government have certainly enabled a small section of the backward communities to improve their own economic condition and enter the middle class. Such transformation is limited and it has no scope for further expansion of the existing economic structure which the ruling elite dare not tamper with. A vast majority of the agricultural labourers, forest workers and small and marginal farmers from the backward communities are unable to take advantage of the reservations. In fact, reservation is not meant for them. The political parties have co-opted the propertied classes of the backward communities. They have in return so far legitimised the political system without challenging the existing economic structure; the SC,ST and OBC elite have worked as mobilisers of the backward caste voters in favour of the Congress or such other bourgeoise parties. And, they have also worked as effective agents for regulating the poor members of the backward communities for maintaining the status quo.

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Report on the Workshop on Backward Classes and Reservations

Even as the embers of the anti-reservation agitations in Madhya Pradesh, Uttar Pradesh, Bihar and elsewhere have yet to die out, the issue of reservations is gaining fresh impetus in different quarters. That the issue is difficult to resolve is only too obvious from the vascillations and parochialism of the political parties. Elected members of legislative assemblies and Parliament owe their elections to vote banks of castes which can marshall large numbers and which have been assiduously wooed by benefits of the reservation schemes. Hence, despite the rhetoric of the need for reviewing the reservation policy, hardly anyone dares to initiate concrete steps to dispassionately review the policy.

It is in this context that a full day Workshop on Backward Classes and Reservations, organised on 3 March 1990 by the Madras Institute of Development Studies, attended by about 40 participants, presided over by Malcolm S. Adiseshiah has to be seen as a glimmer of hope. The Workshop addressed itself to the following specific issues:

a. Formulation of special treatment provisions in the Constitutional context;

b. identification of the target groups, namely, the SCs, STs, and OBCs; and

c. appraisal of the special treatment provisions in the context of the implementation of the relevant programmes, especially the reservation policy, and their consequences as envisaged by the Constitution and as borne out by their effects on the target groups.

The five papers specially prepared for the Workshop were a) 'The Glamour of Clamour for Reservation' (C Parvathamma), b) 'Special Treatment Provisions: Origin and Practice' (GA Rajkumar), c) 'Mandal Commission Report on Backward Classes: Should it be Revived or Revised?' (N. Subba Reddy), d) 'Reservations : Promise and Performance' (Ghanshyam Shah) and e) 'Reservations in Theory and Practice' (P. Radhakrishnan).

Instead of formal presentations by the paper writers, these papers were

presented by 'discussants' (S. Ambirajan, Nirmal Sen Gupta, Saraswathy, M.A. Kalam and C.T. Kurien respectively). Their presentations were followed by general discussion and feed back.

Parvathamma's paper deplored the vicious circle of caste perpetuating caste in the case of the SCs through the insistence on production of caste certificates for claiming the benefits; the failure of the policy of political reservations to throw up leaders; the concern of the elected leaders to feather their nests rather than to work for the community; the problem of 'passing of' by claiming the benefits through false certificates; and the clamour of more and more groups for backward class status. Presumably out of sheer exasperation, the paper went to the extent of suggesting the declaration of everyone as backward.

Rajkumar's paper presented an exhaustive listing of the various Constitutional Provisions for the protection of the SCs and STs. As a person directly involved in the implementation of these provisions (as the Director of Adi Dravidar and Tribal Welfare Department, Government of Tamil Nadu), he drew attention to the 'distressing effects' of the positive discrimination provisions of the last four decades and highlighted the dismal performance of the reservation policy both in education and employment as far as the SCs and STs are concerned. He emphatically stated that the police force still fail to protect the Scheduled Castes against acts of violence, crime, and atrocities and to understand and appreciate their aspirations. He called for a radical change in the ethos, attitude and approach of the police in cases involving the SCs.

Subba Reddy's paper brought out clearly the methodological limitations of the Mandal Commission report, especially the inadequacy of its survey confining only to one urban centre and two villages in each district; the ambiguities in the indicators used by the Commission; and the arbitrariness in assigning weightage to the different indicators. The paper cogently brought out the errors in the population projections of the Comission, the dangers in modelling other Commission reports on this report; and the urgent need for conducting a fresh survey devoid of the pitfalls of the present Commission.

Ghanshyam Shah's paper was again highly sceptical of the outcome of the reservation policy. According to it the reservation policy has been evolved primarily for political exigency, to win elections and contain the rising aspirations and consequent unrest among the deprived classes, and not out of any ideological perspective and strategy for building up a new social order through the path of parliamentary democracy. The paper also noted that the reservation system only co-opts the propertied classes of the backward communities for legitimising the political system and for preventing challenges to the existing economic structure.

Making an analytical distinction between the special dispensation provisions for the SCs and STs on the one hand and the OBCs on the other, Radhakrishnan's paper broadly grouped the special dispensation provisions for SCs and STs into protective, developmental and preferential categories. The paper emphasised that the effective implementation of the provisions of the first two categories is a precondition for actualising the provisions of the third category, and argued that the hitherto implementation of these provisions has been too ineffective to achieve their intended objectives. Marshalling evidence, the paper brought out clearly that the SCs and STs still lag far behind the general population in their educational attainments and representation in public services. The limitations listed by the paper, of the hitherto implementation of the special dispensation provisions for the SCs and STs include inadequate budget allocations in successive plans, lack of any national mechanism for effectively enforcing the various measures, the higher-echelon nature of the benefits, the lack of access of the members of the target groups especially those at the lower levels, to the government and judiciary, and the failure of the reservation provisions to penetrate private employment and educational institutions.

The paper argued that the implementation of the Constitutional provisions for the OBCs has been in greater disarray because of the failure of the State to evolve a central policy for the identification and advancement of the OBCs. Based on the data available for Tamil Nadu the paper presented a very dismal picture of the implementation of the provisions for the OBCs because of the politicisation of the reservation policy and various limitations in the implementation especially the failure to identify the really backward and to prevent the 'creaming effect' of the policy.

Given the broad theme of the Workshop and the divergent issues covered by the five papers, the deliberations turned out to be too loud and at times even acrimonious. The issues which came up for discussion were the philosophy underlying the reservation policy, the politics of reservations, the socio-cultural and political impact of the reservation policy of the last four decades, the very relevance of the existing reservation policy and the definition of social backwardness with reference to the OBCs.

What emerged clearly from the deliberations was an abiding concern for continuing the reservation policy especially for the SCs and STs. But what was being questioned was the mode of its implementation; the adequacy of the provisions; the abuse of the existing provisions for political ends; and the confusion between the reservation policy for SCs and STs and for the much hackneyed OBCs. Some participants were forthright in their views that while in the pre-independence period the oppressors and enemies of the SCs were the Brahmins, in the present context they are the OBCs.

One very valid observation made in the context of the ever expanding category of the OBCs was the limitation of State power and resources in extending the Constitutional provisions to more than half of the total population excluding SCs/STs

and to about three fourths of the population including them. Some participants were very emphatic to peg the population percentage of OBCs at the level of the really backward so as to make the policy highly effective and to prevent the really backward being swamped by the multitude of the ambiguous OBCs category. One crucial point on which the deliberations did not make much headway was the definition of social backwardness. Some participants felt that it should be limited to the historically disabled, while some others were more inclined to see it as a mere economic category. There was also some confusion between the social backwardness of the SCs and STs and that of the OBCs. These issues would have probably been deliberated better had the Workshop been confined either to the SCs and STs as one category or to the OBCs as another category rather than bringing both the categories for discussion in the same Workshop. All the same, the Workshop did help in gaining a better understanding of the theory and practice of reservations and in driving home the need for a more thorough going debate on both.

R. VIDYASAGAR
V. SURESH

Twentieth Census of Social Science Research in Southern States

1990

Introduction

The Twentieth Census of Social Science Research has increased to 277 from last year's 238. However this figure is lower than previous year's 313. Table-1 which tabulates the entries according to states and institutes as well as disciplines shows that the coverage is far from being exhaustive. For instance, from Andhra Pradesh only 4 institutes have responded and an equal number from Karnataka, Kerala 2 and Tamil Nadu 8. This has been rather disappointing inspite of making special efforts to canvass information and sending reminders. Letters were sent out to as many as 250 departments in various universities in South India. We would welcome suggestion from users of the census on how its coverage can be made more comprehensive.

Table-1 as already mentioned, gives the list of institutions that have participated in the census and the general classification of entries according to the subjects. In all 18 institutions (departments) responded to the request for information. Of the total 277 entries, Economics leads with 141, which is a sharp rise from last year's 80 entries. Surprisingly for the first time Agriculture takes the second place with 37 entries followed by Sociology with 22 and Education with 20 entries. Agriculture, Demography, Geography are the new subjects that have found their entries this year when compared to last year. The figures for the remaining subjects are Political Science and Public Administration 12, Anthropology 11, Psychology 9, Demography 6, Commerce and Business Administration 5,

History 5, Philosophy 5, Social Work 3 and Geography 1.

The rows in Table-1 gives information about the institutions arranged according to States. The states total are also indicated. Like last year Andhra Pradesh leads with 123 entries over Tamil Nadu's 94 followed by Karnataka and Kerala.

In Andhra Pradesh, Economics leads with 90 entries. In Karnataka Anthropology with 11 followed by Psychology with 9, in Kerala Economics has 9 entries, and in Tamil Nadu Economics with 40 followed by Education with 20.

Table-2 gives a more detailed classification of the census according to the purpose for which research is being done. Out of the 277 entries, 125 leads to Ph.D. theses and 69 to M. Phil dissertations, the rest being research not linked to degrees.

Presentation of Census

Part I of the census which reports on research projects is organised as follows :

The classification is first, subject-wise, second, institution-wise (University, institute and college), third, degree-wise (M. Phil, Ph.D. and projects not leading to any degree) and fourth, sub-area- wise (alphabetically) and within each sub-area the order is chronological. The subject classification and the institutional listing is alphabetically arranged beginning with Anthropology.

Every entry first carries the title of the project. This is followed by the sub-area to which the research project belongs. It should be noted that the sub-area is as given by the respondents. Where this or any other information is absent from any entry, it may be understood that the same was not furnished by the respondent. The sub-area is followed by a brief account of the objective and methodology of the project. Then follow the degree to which the project leads (Gen standing for 'General' is indicated if the project does not lead to a degree), the date of commencement of the project and date of termination, in that order. Finally, the names of the researcher and supervisor respectively are furnished. The abbreviation '(Ind)' appearing against the name of the researcher (s) indicates that the project has been undertaken independently by the researcher (s).

In the case of projects which have been reported either in the last census or in an earlier one, two points should be noted (1) The objectives and methodology of projects are not repeated if they have already been reported in sufficient detail. However all other information is furnished. (2) In addition to other details, the objectives and methodology are included in cases where: (i) this information was missing in the earlier report, (ii) the presentation in the current report appeared to be more clear or detailed, and (iii) any change was noticed in the Objectives and or Methodology.

The following abbreviation have been used in the presentation :

A : Sub-area

O : Objectives

M : Methodology

R : Name of the researcher

S : Name of the supervisor

Gen : General

Ind : Independent Research

In part II of the Census, the areas of specialisation of different centres is listed on the basis of information supplied by the heads of concerned centers (departments or institutes as the case may be). It is hoped that the information given in part II will help the researchers to find out where research work of their interest is currently going on. The appendix provides the addresses of the universities, institute and colleges which have responsed to the census.

Comments on the census from users and suggestions for improving the presentations of the reports will be most welcome and may be sent to the Director of the Institute.

TABLE : 1 **Twentieth Census of Social Science Research in Southern Universities : General Classification**

	Agriculture	Anthropology	Commerce & Business Management	Demography	Economics	Education	Geography	History	Philosophy	Political Science & Public Administration	Psychology	Social Work	Sociology	Total
I. ANDHRA PRADESH														
1. *Osmania University*	...	...	...	...	47	...	...	...	...	...	...	...	...	...
2. Sri Venkateswara University	...	...	...	6	8	...	1	...	...	5	...	...	4	...
3. University of Hyderabad	...	...	...	...	2	...	...	5	...	...	...	...	...	...
4. Administrative Staff College, Hyderabad	12	...	...	...	33	...	...	...	...	...	...	...	...	...
Andhra Pradesh Total :	12	...	...	6	90	...	1	5	...	5	...	...	4	123
II. KARNATAKA														
1. Bangalore University	1	...	...	...	...	...	...	...	...	7	9	...	...	...
2. Karnatak University	...	11	...	...	...	...	...	...	5	...	...	...	...	...
3. University of Mysore	...	...	...	...	2	...	...	...	...	...	...	...	1	...
4. Kousali Institute of Management Studies	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Karnataka Total :	1	11	1	...	2	...	...	...	5	7	9	...	1	37

III. KERALA

1. University of Cochin	...	...	...	...	9	...	...	...	...	...	...	...	...	...
2. University of Kerala	...	...	...	...	...	...	...	...	...	...	...	...	14	...
Kerala Total :	...	...	...	...	9	...	...	...	...	...	...	...	14	23

IV. TAMIL NADU

1. Bharathidasan University	...	...	...	...	4	...	...	...	...	...	...	...	...	...
2. Madurai Kamaraj University	...	...	4	...	13	6	...	...	...	...	...	...	3	...
3. Tamilnadu Agricultural University	24	...	...	...	...	...	...	...	...	...	...	...	...	...
4. University of Madras	...	...	...	...	...	14	...	...	...	...	...	...	...	...
5. CRNIEO	...	...	...	...	5	...	...	...	...	...	...	...	...	...
6. Madras Institute of Development Studies	...	...	...	...	13	...	...	...	...	...	...	...	...	...
7. Madras School of Social Work	...	...	...	...	...	...	...	...	...	...	...	3	...	...
8. Stella Maris College	...	...	...	...	5	...	...	...	...	...	...	...	...	...
Tamilnadu Total :	24	...	4	...	40	20	...	...	...	...	...	3	3	94
Grand Total :	37	11	5	6	141	20	1	5	5	12	0	3	22	277

TABLE : 2

Twentieth Census of Social Science Research in Southern Universities Subject Classification

Sl. No.	Area	Page No.	Ph.D.	M.Phil	General	Total
1 — 37	Agriculture	S. 7	3	—	34	37
38 — 48	Anthropology	S. 14	10	—	1	11
49 — 53	Commerce	S. 16	5	—	—	5
54 — 59	Demography	S. 17	4	2	—	6
60 — 200	Economics	S. 18	62	42	37	141
201 — 220	Education	S. 45	5	15	—	20
221 — 221	Geography	S. 50	—	—	1	1
222 — 226	History	S. 50	—	2	3	5
227 — 231	Philosophy	S. 51	5	—	—	5
232 — 243	Political Science	S. 53	7	2	3	12
244 — 252	Psychology	S. 55	4	4	1	9
253 — 255	Social Work	S. 57	—	—	3	3
256 — 277	Sociology	S. 58	20	2	—	22
	Total		125	69	83	277

Part 1. Research Projects

AGRICULTURE

Administrative Staff College of India, Hyderabad

1. Evaluation Study of the Soil Conservation Programme in the RVP Catchments of Mayurakshi

   A : Agriculture and Rural Development

   O : —

   M : —

   Gen -

   R : A. A. Firdausi, C. Sitapathi Rao, N. Prem Kumar

   S : (Ind)

2. Evaluation Study of Jhum Control Schemes in the North Eastern States

   A : Agriculture and Rural Development

   O : —

   M :

   Gen

   R : C. Sitapathi Rao, S. Tutabul Hassan, S. Satish, T. V. S. N. Suryanarayana Rao, S. Raghuvir Rao, C. Vijaya Shyamala

   S : (Ind)

3. *Evaluation Study in the Catchment of River Valley Projects of Bhakra and flood prone Catchment of Upper Yamuna and Upper Ganga.*

   A : Agriculture and Rural Development

   O : —

   M : —

   Gen -

   R : C. Sitapthi Rao, C. Vijaya, Shyamala, T.V.S.N. Suryanarayana Rao

   S : (Ind)

4. Farmers Participation in Irrigation Management

   A : Management of Water Resources

   O : —

   M : —

   Gen : July 1987 : June 1991

   R : K. K. Singh, C. Sitapathi Rao

   S : (Ind)

5. Case Study on Vijaipur Project

   A : Management of Water Resources

   O : —

   M : —

   Gen : April 1988, July 1988

   R : K. S. Ramesh, A. V. Srinivasan

   S : (Ind)

6. Evaluation of Intensive Development Programme

   A : Management of Water Resources

   O : —

   M : —

   March 1989 : January 1990

R : K. S. Ramesh, S. Satish

S : (Ind)

7. Study of Watershed Management and Irrigation in Drought Affected Areas in the State of AP & Karnataka

A : Management of Water Resources

O : —

M : —
Gen : Oct. 1988 ; July 1989

R : C. Sitapathi Rao, S. Satish, M. V. K. Siva Mohan

S : (Ind)

8. Evaluation of Plantation Programmes

A : Management of Water Resources

O : —

M : —
Gen : January 1989 May 1989

R : A. A. Firdausi, K. K. Singh, S. Satish, M. V. K. Siva Mohan K. S. Ramesh, C. Sitapathi Rao, S. Turabul Hassan

S : (Ind)

9. Evaluation of Agriculture Programmes : Seed Distribution

A : Management of Water Resources

O : —

M : —
Gen : March 1989 ; Oct. 1989

R : C. Sitapathi Rao, S. Turabul Hassan

S : (Ind)

10. Evaluation Study in the Catchment of River Valley Project of Pohru (Jammu & Kashmir).

A : Management of Water Resources

O : —

M : —
Gen : May 1989 ; Dec. 1989

R : C. Sitapathi Rao, S. Turabul Hassan

S : (Ind)

11. Planning and Management of Development Projects at District Level

A : Management of Water Resources

O : —

M : —
Gen : Dec. 1989 ; July 1990

R : S. Turabul Hassan, K. S. Ramesh

S : (Ind)

12. Evaluation of Farmers Training Centres in Andhra Pradesh

A : Management of Water Resources

O : —

M : —
Gen : January 1990 June 1990

R : A. A. Firdausi, C. Sitapathi Rao

University of Agricultural Sciences, Bangalore

13. Input demand and output supply of cereals in Karnataka

A : Agricultural Marketing

O : To Study whether the prices of cereals have failed to stimulate production, the input price inflation induce subsistence farmers to increase their marketed surplus and present structure of prices does not favour increase in marketed scrplus which clals for a 3 per cent increase in technology.

M : Normalised quadratic profit functions on data on Jowar, Paddy & Ragi in Karnataka.
Ph. D. : 1986 : 1989

R : E. P. Reddy

S : P. G. Chengappa

Tamil Nadu Agricultural University

14. Storage, Processing and Transport network of paddy-rice system in Tamilnadu in 2000 AD

A : Agricultural Marketing

O : To find out the optimum number and location of rice mills in Tamilnadu for 2000 AD taking into account the growth in population, income area and productivity of rice.

M : —
Ph.D : 1985 : 1989

R : N. Raveendran

S : P. K. Aiyasamy

15. Modernisation programmes and performance of Jamuna irrigation system in Assam.

A : Resource Economics

O : To study the system performance in respect of allocation and use of water at system level and farm level, the effect of water distribution on input use, yield and water management, the impact of command area development authority programmes on production and equity the flood damages and benefits of flood control and programmes and its impact on system performance.

M ; Out of the 3 distributaries in the system, one selected and divided into head, middle and tail portions. From each of these portion one minor or sub-minor selected at random. From each minor / sub-minor atleast 4 villages selected out of which two will be with CADA and remaining non CADA villages. Altogether 6 CADA villages and 6 non CADA villages selected from which sample households atleast 20 from each villages and primary data collected. Secondary data from different official sources.
Ph.D : 1988-89 : 1990-91

R : Achyut C H. Sarma

S : C. Ramasamy

16. Changing Structure of rural employment market in Tamilnadu

A : Production Economics

O : To Study the extent of unemployment and under employmer and the changes in employmen

M : Primary data by survey methoc
Gen : Dec 1983 : Dec 1989

R ; V. Rajagopolan

S : T. Balakrishnan

17. Comprehensive Scheme for studying the cost of cultivation of Principal crops in Tamilnadu

A : Resource Economics

O : To estimate the cost of Production estimate the input-use, and productivity

M : A three stage stratified random sampling is followed with taluk as first unit, village as second unit and the cultivators the ultimate sampling unit. The study covers the entire Tamilnadu

Gen : 1971-72 : ongoing

R : S. R. Subramanian.

S : M. Chandrasekaran

18. Impact of commercial trading at producer's level

A : Agricultural Marketing & Management

O : To assess the impact of commercial grading structure at producers level

M : The study covered 12 centres in six district market committees

Gen : April 1987 : June 1989

R : N. Srinivasan, K. Mani

S : (Ind)

19. Conjunctive use of Ground water and Surface water for optimal irrigation management and cropping pattern in river basin projects under different rainfall situations

A : Irrigation

O : To Study the potentialities for conjunctive use and possibilities of diversification, that the integrated water management facilitate increased income and employment and emphasis on modernisation of field channels which can be executed by farmers organisation

M : Lower Bhavani project region was divided into three zones and in all 300 farmers were contacted for collecting primary data

Gen : June 1988 : Dec 1989

R : T. Alagumani

S : S. Krishnamoorthy

20. Increasing income and employment through optimal farm planning and identification of constraints

A : Farm Management

O : To develop optimal farm plans for different size of groups of farms operated in Coimbatore district

M : Four blocks selected and from each block 45 farms selected. Linear programming done to derive optimal plans

Gen : May 1986 : Nov 1989

R : A Kandaswamy, R. Venkatram

S : (Ind)

21. Resource use and marketing supply, marketing and use — pattern of neem in Agriculture in Tamil Nadu

A : Resource use & Marketing

O : To analyse the use pattern of neem products in agriculture, besides arriving at the supply and processing of neem seeds into neem oil and marketing

M : —

Gen : 1988 : 1989

R : A. Kandasamy

S : N. Raveendaran

22. Capital Requirement for modernisation of Indian agriculture

A : —

O : To assess short term as well as long term capital requirement for modernising agriculture at different levels of technology

M : Programming

Gen : Jan 1988 : Jan 1992

R : M. Chinnadurai

S : A. Kandaswamy, C. Ramasamy

23. An appraisal of the living conditions of farmers in southern Tamil Nadu

A : Rural development

O : To evaluate the living conditions of the farmers in different parts of Southern Tamilnadu through asset position, income, consumption, employment, saving and investment pattern of the sample farmers.

M : Sampling included different irrigated conditions, variation in head and tail reaches and dry conditions, Conventional analysis is used.

Gen : July 1988 : March 1989

R : S. R. Subramanian

S : (Ind)

24. Agricultural production in Tamilnadu — An assessment of Growth trends

A : Agricultural growth

O : Districtwise growth rates for area, productivity, production, land use pattern and rainfall calculated and some general conculsions drawn

M : Secondary published sources used for data and mostly compound growth rates for the period 1960-61 to 1983-84 estimated

Gen : Oct 1988 : March 1989

R : P. Paramasivam

S : (Ind)

25. An economic analysis of reasons for variation in productivity of tea in Tamilnadu

A : Agricultural Economics

O : To study the productivity differences and their factors, estimate the economic costs and returns associated with the differences in productivity on the selected sample estates and identify the major constraints in increasing the productivity and suggest solutions for the same.

M : 60 estates randomly selected and the reasons for variation in productivity among different sample groups analysed

R : N. Ajjan

S : (Ind)

Gen : Sep 1988 : March 1989

26. Transfer of Agricultural Technology and Dynamics of Information flows within the technology sector.

A : Resource Economics

O : To analyse the basis for finalisation of research projects, assess the extent of adoption of new technology and feed back.

M : The southern zone representing the dry tracts and the cauvery delta zone selected.

Gen : April 1989 : March 1991

R : M. Chandrasekaran

S : A. Kandaswamy

27. Role of village shandies in marketing of farm products.

A : Agricultural Marketing

O : To study the role of the village shandies in marketing of farm products and examine socio-economic implications involved.

M : North Arcot District – One taluk comprising of a cycle of shandies – 240 buyers/sellers and 90 farmers selected.

Gen : April 1989 : June 1990

R : P. Subramanian

S : (Ind)

28. A model of an Agricultural Household

A : Agricultural Household modelling

O : To develop an econometric model of household behaviour involving production and consumption decisions.

M : —

Gen : March 1989 : Feb. 1990

R : C. Ramasamy

S : (Ind)

29. Export performance of cardamom in Tamilnadu.

A : Production Economics

O : To study its export performance of cardamom

M : Secondary data from reports

Gen : March 1989 : August 1990

R : V. Balakrishnan

S : (Ind)

30. Study on price behaviour of major agricultural commodities.

A : Agricultural Marketing

O : To analyse emprically the influence of production of major agricultural commodities viz., paddy, sorghum, cumbu, ragi, groundnut, sugarcane and cotton on prices, find out the extent of instability, seasonal and cyclical movements in production and prices of select commodities and study the relationship between farm harvest prices, wholesale prices and retail prices of select commodities.

M : Collection of secondary data pertaining to different prices and production of the major agricultural commodities.

Gen : April 1989 : May 1990

R : K. N. Selvaraj

S : (Ind)

31. Wood marketing in Tamilnadu

A : Forest Economics

O : To find out the marketing process of wood and the marketing channel and market structure.

M : Survey of wood merchants

Gen : June 1989 : Feb 1990

R : K. Rajendran

S : (Ind)

32. Influence of risk on farm decisions concerning input use in tank fed farms of Chengai Anna district.

A : Production Economics

O : Quantification of risk on safety criterion and studying the influence of other variables concerning input use.

M : Simultaneous model

Gen : June 1987 : May 1990

R : O. Timothy Randhir

S : (Ind)

33. Spatial and Temporal variation in cost and returns of principal crops in Tamilnadu.

A : Cost and returns

O : To eatimate the yield, cost and returns for the major crops in Tamilnadu under different agro climatic condition, the share of various inputs in relation to crop outputs, analyse the inter-regional variations in yield and cost.

M : Cost of cultivation of principal crops (APO) scheme covered 600 farmers spread over 6 agro-climatic zones in Tamilnadu.

Gen : July 1989 : June 1990

R : J. Ajjan

S : A. V. Rajan

34. An Information Management system of agricultural production statistics for Tamilnadu on personal computers.

A : Agricultural database

O : To develop a data base system to enter, edit, update and retrieve with few statistical analyses, provisions, data relating to agricultural production in Tamilnadu.

M : Secondary data sources and the system in elementary form as designed in GWB + SIC.

Gen : July 1989 : March 1990

R : P. Paramasivam

S : (Ind)

35. An appraisal of oilseeds production in Tamilnadu.

A : Production Economics

O : Analysing the growth trends in area, productivity and production of oilseeds in Tamilnadu, estimating the cost & returns and the farmers' preference in raising oil seeds.

M : —

Gen : Oct. 1989 : Sep. 1990

R : N. Ravindran

S : (Ind)

36. Socio-economic component of botanical pest control in rice based cropping systems.

A : Resource use and marketing

O : To analyse the farmers use pattern of botanicals in pest control arrived at the economics of different types of neem processing, evaluate the experiments using neem products as pesticides in agriculture.

M : —

Gen : 1989 : ongoing

R : A. Kandasamy and N. Ravindran

S : (Ind)

37. Prudent status of processing of oilseeds in Tamilnadu.

A : Forest Economics

O : To find out the oil recovery from oil milling units, the problems of oil milling industry and suggest ways to improve oil recovery by information processing methods.

M : —

Gen : Dec. 1989 : March 1990

R : K. Rajendran

S : V. V. Sreenarayanan

ANTHROPOLOGY

Karnatak University, Dharwad

38. Rural-urban migration and social cultural change among the Brahmins of Dharwad.

A : Social Anthopology

O : —

M : —

Ph. D. : 1982 : ongoing

R : P. S. Adi

S : B. G. Halbar

39. Idign of Chittoor District – A study in change and continuity.

A : Social

O : —

M : —

Ph. D. : Nov. 1985 : Jan. 1990

R : K. Vishwanadha Reddy

S : K. G. Gurumurthy

40. Hanbars of South India – A study

A : Social

O : —

M : —

Ph. D. : July 1986 : ongoing

R : Aruna Hallikeni

S : K. G. Gurumurthy

41. Social Anthropological study of a nomadic artisan community in a metropolitan setting (Gudalia lohars of Delhi).

A : Social

O : Study the loss of traditional occupation and sedimentation of the group and finally end up as a part of metropolitan setting and start working on the multinational economy.

M : Micro-macro villages

Ph. D. : Dec. 1986 : Oct. 1989

R : Anil Mahajan

S : K. G. Gurumurthy

42. Social-cultural background of T.V. Audiance.

A : Communication

O : —

M : —

Ph. D. : 1987 : ongoing

R : M. Gangadharappa

S : K. G. Gurumurthy

43. Crimes and customs among the Lambaries in Chitradurga District.

A : Social Anthropology

O : To study crimes and customs among Lambaries in Chitradurga District of Karnataka.

M : Interviews library study, examining records.

Ph. D. : Nov. 1988 : ongoing

R : M. Krishnamurthy

S : N. K. Kadetotad

44. Factional politics in Karnataka

A : Social Anthropology

O : To study factional politics in Karnataka during the decade of 1977-87.

M : Interviews, library study, participation with leaders.

Ph. D. : Nov. 1988 : ongoing

R : S. P. Halagi

S : N. K. Kadetotad

45. Life, work and travails of Dalit women in Tamilnadu and the impact of development programme.

A : Anthropology of Women

O : The dalit women are the victims of caste bias and sex-bias and suffer socio-political economic inequality, to analyse the dalit women's perception of self and exploitation and handicaps.

M : Empirical, cultural, political study of two villages in Tamilnadu.

Ph. D. : Dec. 1988 : ongoing

R : G. Suchitra Rao

S : B. G. Halbar

46. Anthropo-criminological study of chapparbands of Bijapur and Dharwad District.

A : Bio-social Anthropology

O : To analyse the anthropological and criminological aspects of chapparbands — an ex-criminal tribe of Bijapur and Dharwad District.

M : Field and Laboratory work

Ph. D. : July 1989 : ongoing

R : Huddar

S : P. B. Gai

47. An Anthoropological study of the children of the slums in Coimbatore.

A : Socio-cultural Anthropology

O : To understand the totality of the real life situation of the children of the slums, their living conditions and the interlinkages between the social, cultural, economic, political and educational life that mould their personhood.

M : Survey, informal and journal interviews and participant observation.

Ph. D. : July 1989 : August 1993

R : R. Rajagopal

S : Prabha Mahale

48. Women's Work and Family strategies : A study of Basavis in Karnataka.

A : Socio-Cultural

O : —

M : —

Gen : 1986 : 1990

R : Shahida

S : Prabha Mahale

COMMERCE AND BUSINESS ADMINISTRATION

Kousali Institute of Management Studies

49. Towards a better tax-order with reference to individuals.

A : Finance

O : To analyse the present direct tax structure in India; critically examine the contribution of the three direct (individual) taxes like personal income, wealth and gift taxes to the Government exchequer, identify the factors leading to tax evasion/avoidance and tax arrears study the impact of various provisions, exemptions and rebates on individual tax payer i.e., tax planning by individual tax payer & examine if there is a case for abolition of income tax on individuals especially on salaried class.

M : Documentary, supplemented by a questionnaire, and the reports of various committees and commissions appointed by the Government of India.

Ph. D. : Aug. 1987 : Aug. 1990

R : Vijayalakshmi C. Ingalagi

S : Bhagwati prasad

Madurai Kamaraj University

50. Non-conventional energy systems planning for an university campus.

A : Systems

O : To study the capacity planning in terms of number of beds, doctors

etc. & energy requirements planning.

M : Simulation models used

Ph. D. : Dec. 1988 : ongoing

R : R. Varadharajan

S : S. V. Vidyanandam

51. Economic impact of leasing

A : Financial Management

O : —

M : —

Ph. D. : April 1989 : ongoing

R : C. Lekshmi Narayana Pillai

S : U. Surya Rao

52. Factors of sickness in SSI in Madurai District.

A : Marketing, entrepreneurship

O : To study the factors that contribute towards sickness in small scale units located in Madurai District.

M : Questionnaire & interview

Ph. D. : March 1989 : March 1994

R : R. Hariharanathan

S : G. P. Rao

53. Marketing Practices in Tyre industry

A : Marketing

O : To identify and analyse the chief determinants of marketing success in the marketing strategies adopted by different tyre companies and suggestions for improving their marketing efficiency.

M : Interviews and structured questionnaire

Ph. D. : July 1989 : ongoing

R : K. Ravichandran

S : R. Jayaraman

DEMOGRAPHY

Sri Venkateswara University

54. Determinants of Infant mortality : A study in Kurnool District.

A : —

O : —

M : —

M. Phil : 1988

R : K. Suvarnalatha

S : K. Mahadevan

55. A study of status, care and problems of elderly Rural women.

A : —

O : —

M : —

M. Phil : 1989

R : R. Geeta Gowri

S : P. J. Reddy

56. Sub-national population projections for India : the use of incomplete data.

A : —

O : —

M : —

Ph. D. : ongoing

R : P. Ramachandran

S : P. B. Jorapur

57. Infant Mortality among Fishermen : bio-social determinants.

A : —

O : —

M : —

Ph. D.

R : T. K. Vimalakumari

S : M. S. R. Murthy

58. Pregnancy and responsible parenthood

A : —

O : —

M : —

Ph. D. : 1989 : ongoing

R : T. Lakshmamma

S : P. B. Jorapur

59. Socio-economic determinants of Differential Fertility in Kerala.

A : —

O : —

M : —

Ph. D : 1989 : ongoing

R : V. Balakrishnan Nair

S : K. Mahadevan

ECONOMICS

Osmania University

60. Public investment on irrigation in AP with special reference to major irrigation.

A : Agricultural Economics

O : —

M : —

M. Phil : ongoing

R : B. Raja Reddy

S : K. Malla Reddy

61. Impact of Irrigation on Agricultural Growth in Andhra Pradesh – A case study in Nalgonda District.

A : Agricultural Economics

O : —

M : —

M. Phil : Oct. 1990 : ongoing

R : M. Raghupathi

S : K. Malla Reddy

62. Structure and Pattern of Public Sector Growth in Andhra Pradesh.

A : Industrial Economics

O : —

M : —

M. Phil : Oct. 1987 : ongoing

R : V. Vijendra Chary

S : AVVSK Rao

63. Agro-based Industrial Development in Nalgonda District during 1975-85.

A : Industrial Economics

O : —

M : —

M. Phil : Oct. 1987 : Feb. 1990

R : K. Samuel John

S : M. Narasimhulu

64. Impact of Gramodaya Scheme on Income and Employment Generation in Nalgonda dist.

A : Rural Economics

O : —

M : —

M. Phil : Oct. 1987 : ongoing

R : S. Prakash Rao

S : J. S. Narayan Rao

65. Changing Agrarian situation in Khammam district during 1975-76 to 1985-86

A : Rural Economics

O : —

M : —

M. Phil : Oct. 1987 : ongoing

R : K. Kotaiah

S : V. Suguna

66. Development potential of Fisheries in Andhra Pradesh.

A : Agricultural Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : K. Bakkaiah

S : B. Satyanarayan

67. Marketing channels of price spread in food and commercial crops.

A : Agricultural Economics

O : —

M : —

M. Phil : Oct. 1988

R : Srinivas Reddy

S : K. Chakradhar Rao

68. The Impact of Regional Rural Banks on Weaker Sections and in the Development of Agriculture.

A : Agriculture

O : —

M : —

M. Phil : ongoing

R : A. Pitchiah

S : Chakradhar Rao K.

69. Economics of Dryland Farming (A case study of Mahabubnagar).

A : Agriculture

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : U. Venkataiah

S : V. Suguna

'0. Level system and performance of rice mills (with reference to rice mills in Miryalaguda mandal).

A : Agriculture

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : B. Anand

S : K. Malla Reddy

71. Population Growth and Family planning programme in A.P.

A : Demography

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : I. Venkateswarlu

S : H. Venkateswara Rao

72. Inter District Comparison of District Industrial Centre in AP.

A : Industrial Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : P. Venkateswarlu

S : Tippa Reddy

73. Productivity in public enterprises (A case study of PEs in AP.

A : Industrial Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : D. Madhusudhan

S : Kamala Subramaniam

74. Growth and Structure of the Medium and Large scale Industries — A case study of Khammam District.

A : Industry

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : B. Sampath Rao

S : AVVSK Rao

75. Cost and returns in stone polishing industry. (Comparative study of performance of selected firms in Tandur).

A : Labour Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : B. Karunakar

S : J. S. Narayan Rao

76. Socio-economic Analysis of Coal mines workers at Mangur (Khammam District).

A : Labour Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : B. Santhosham

S : S. Indrakanth

77. Economic & Educational Status of women employees of OU and their impact on consumption and savings.

A : Rural Economics

O : —

M : —

M. Phil : Oct. 1988 : ongoing

R : Sharada Devi

S : P. Neerada Reddy

78. Social forestry and rural development in AP with special reference to Mahabubnagar District.

A : Agriculture

O : —

M : —

M. Phil : June 1989 ; ongoing

R : Padmavathi T.

S : K. Malla Reddy

79. Trends and Pattern of Electricity Consumption in AP.

A : Agriculture

O : —

M : —

M. Phil : June 1989 : ongoing

R : Surender Rao V.

S : S. Indrakanth

80. Technology and farm income distribution (A case study of Nalgonda District).

A : Agriculture

O : —

M : —

M. Phil : June 1989 : ongoing

R : K. Amarender Reddy

S : Chakradhar Rao

81. Analysis of interstate industrial disparities in India.

A : Industry

O : —

M : —

M. Phil : June 1989 : ongoing

R : Anuradha A.

S : AVVSK Rao

82. Industrial sickeness of small scale industries in Andhra Pradesh.

A : Industry

O : —

M : —

M. Phil : June 1989 : ongoing

R : Lakshmi T. V.

S : Tippa Reddy

83. Working conditions and magnitude of exploitation of child labour in construction industry (A Sample study of Hyderabad).

A : Labour Economics

O : —

M : —

M. Phil : June 1989 : ongoing

R : S. Sunitha

S : P. Neerada Reddy

84. Occupational Hazards and Living Standards of Beedi Workers (A Case Study of 2 mandals in Warangal District).

A : Labour Economics

O : —

M : —

M. Phil : June 1989 : ongoing

R : Maisadri M.

S : V. Suguna

85. Impact of Infrastructure on Economic Development — A Case Study of Atmakoor in Nalgonda District.

A : Rural Economics

O : —

M : —

M. Phil : June 1989 : ongoing

R : Venkateswarlu K.

S : Kamalasubramaniam

86. Relationship between size and returns in a Less Developed Area (A Case of Kothagudam Mandal).

A : Rural Economics

O : —

M : —

M. Phil : June 1989 : ongoing

R : Prameela K.

S : G. Gopal Reddy

87. Nature and Magnitude of Rural Unemployment (A Case Study of Mahabubnagar District).

A : Rural Economics

O : —

M : —

M. Phil : June 1989 : ongoing

R : J. Papala Rayudu

S : J. S. Narayan Rao

88. Impact of DPAP with special reference to Agriculture and Minor irrigation (A Case Study of Mahabubnagar District).

A : Agriculture

O : —

M : —

M. Phil : June 1989 : ongoing

R : K. Lakshmaiah

S : K. Sai Haragopal

89. Benefit-cost analysis of Bio-gas plants.

A : Agriculture (agro-based)

O : —

M : —

Ph. D. : —

R : Krishmaiah

S : S. Kishan Rao

90. Employment and wage pattern of agricultural labourers in Andhra Pradesh for the period 1965-85.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : N. Venkataiah

S : M. Yadava Reddy

91. Growth and instability in foodgrains production in the four southern states in India.

A : Agricultural Economics

O : —

M : Growth rates measured by using exponential growth rate and instability is measured through coefficient of variation around Lorenz Curve. Study covers 7 major crops/crop groups viz. rice, jowar, bajra, small millets, pulses, foodgrains and groundnut for the period 1956-57 to 1986-87

Ph. D. : Dec. 1988 : ongoing

R : N. Ramakrishna Reddy

S : J. Mahender Reddy

92. Analysis of Agricultural Subsidies – A case study of Andhra Pradesh.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : K. Shiva Rami Reddy

S : R. Radhakrishna

93. Productivity and efficiency under different sources of Irrigation : A case study of Andhra Pradesh.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : —

S : —

94. Identification of backward region — A study of regional disparities in Andhra Pradesh.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : J. Panduranga Reddy

S : M. Yadava Reddy

95. Evaluation of IRDP : A micro level study of Karimnagar District.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : K. Pratap Reddy

S : M. Yadava Reddy

96. Agricultural credit policy and planning with special reference to Andhra Pradesh 1981-85.

A : Agricultural Economics

O : —

M : —

Ph. D. : —

R : S. Bharathi

S : J. S. Narayan Rao

97. Structural changes in Agriculture — A Case Study of Andhra Pradesh during the period 1960-1985.

A : Agricultural Economics

O : —

M : —

Ph. D. : Nov. 1989 : ongoing

R : V. Ramesh

S : M. Narasimhulu

98. Supply response of slow growth crops with special reference to pulses production in Andhra Pradesh during 1970-71 to 1984-87.

A : Development Economics

O : —

M : —

Ph. D. : Jan. 1989 : March 1990

R : V. Madhusudhana Rao

S : M. Narasimhulu

99. Energy and economic growth with special reference to Census manufacturing sector — 1960-80.

A : Energy Economics

O : —

M : —

Ph. D. : —

R : P. Rama Rao

S : J. Mahender Reddy

100. Financing of Indian five year plans with special reference to Taxation.

A : Fiscal Economics

O : —

M : —

Ph. D. : —

R : M. Venkateswarlu

S : B. Satyanarayan

101. Pattern of Industrial Development—Interstate Comparisons.

A : Industrial Economics

O : —

M : —
Ph. D. : —

R : V. Rajeshwari

S : K. S. Upadhyay

102. Pattern of development and the incidence of rural poverty in three regions of Andhra Pradesh.

A : Rural Economics

O : —

M : —
Ph. D. : —

R : I. Annapurna

S : K. S. Upadhyay

103. An analysis of functioning of Nizam Sugar Factory : A Case Study of Asmath Nagar.

A : Industrial Economics

O : —

M : —
Ph. D. : —

R : Syed Ali

S : K. S. Upadhyay

104. Development planning and Disparities in Andhra Pradesh (An Interstate regional analysis between 1956-1980).

A : Rural Economics

O : —

M : —
Ph. D. : —

R : Asif Jahan

S : J. S. Narayan Rao

105. Evaluation of Integrated rural development programme — A case study of two mandals in Medak District.

A : Rural Economics

O : —

M : —
Ph. D. : —

R : G. Krishnaiah

S : J. S. Narayan Rao

106. Paper industry in Andhra : An analysis of structure costs, factors and production.

A : —

O : —

M : —
Ph. D. : ongoing

R : Somayajulu

S : K. S. Upadhyay

Sri Venkateswara University, PG Centre

107. Financing of handlooms by commercial banks in Chittoor District.

A : Banking

O : —

M : Fieldwork with a schedule convassed among 150 weavers

M. Phil : March 1988 : March 1989

R : S. Krishnama Raju

S : L. K. Naidu

108. Fiscal crisis in India

A : Public Finance

O : To study the revenue account of the government of India and analyse the effects of continuous deficits in the current account.

M : Secondary data from budget reports, Govt. of India publications like Economic survey and report on Currency and Finance.

M. Phil : 1989 : 1990

R : Z. Prathap kumar

S : G. Chandrasekar Rao

109. Growth of public expenditure in Andhra Pradesh.

A : Public Finance

O : To analyse different theories of public expenditure, study different components of public expenditure in India and their trend and the different components of public expenditure of Andhra Pradesh.

M : Secondary data from the blue books of Govt. of India and the Govt. of Andhra Pradesh. Appropriate qualitative techniques used to draw conclusions.

M. Phil : 1989 : 1990

R : D. Sulochana Devi

S : G. Raghava Reddy

110. Marshall's theories of poverty and its relevance to India.

A : —

O : To analyse Marshallian theory of poverty & study the relevance of Marhallian theory of population to India.

M : Books on Marshallian theories of poverty from the main stay of the study besides Indian data collected from the books of the Govt. of India.

M. Phil : 1989 : 1990

R : M. Sudhakara Rao

S : G. Raghava Reddy

111. International monetary system and developing countries.

A : International Economics

O : To analyse the growth, structure and use of international reserves vis-a-vis developing economics, describe the changing science of balance of payments of developing countries and the role of IMF, elucidate the frequency and magnitude of exchange rate variation in developing countries and its connection with balance

of payments deficits; analyse the evolutions of NIEO and its contribution to alleviation of balance of payments problems of developing countries.

M : Published data of International financial institutions.

Ph. D. : 1988 : 1989

R : K. Rajagopal Reddy

S : B. Raghavulu Naidu

112. Study of the levels of agricultural production in Nellore Dist.

A : Agricultural Economics

O : To identify the inter-regional differences in Agricultural production in India & analyse the inter-regional differences in agricultural production in Nellore District.

M : Secondary data from the Govt. of India publications like an outline of Indian Agriculture, statistical abstract of AP primary data from sample villages by canvasing a questionnaire.

Ph. D. : 1989 : 1990

R : T. V. Raveendra Reddy

S : G. Raghava Reddy

113. Urban informal sector in reference to a selected Centre in Andhra Pradesh.

A : —

O : —

M : —

Ph. D. : 1989 : 1994

R : K. Sowri Rajan

S : G. Raghava Reddy

114. Centre-State Financial Relations in India.

A : Federal Finance

O : To analyse the theoretical framework of Federalism, describe Centre-State relations in India and study the vertical and horizontal imbalances.

M : Secondary data from the budgets of the government of India and Finance Commission reports.

Ph. D. : 1989 : 1994

R : P. Sathya Narayana

S : G. Chandrasekar Rao

University of Hyderabad

115. Sickness in SSI's and Revivability and the role of various bodies, Financial Institutions in Rangareddy District (AP).

A : Industrial Economics

O : To identify the sickness in SSI's ; examine the units present position, the point of revivability, the conditions to improve the units situation and suggesting right measures.

M : Primary data, units survey through questionnaire and secondary data from banks and financial institutions.

M. Phil : Aug. 1988 : June 1990

R : B. Nagarajuna

S : V. V. N. Somayajulu

116. Economic effectiveness of foodgrains public distribution system and pricing of rice in India.

A : Public Distribution and pricing of foodgrains.

O : —

M : —

Ph. D. : 1986 : ongoing

R : E. K. Rao

S : V. V. N. Somayajulu

Administrative Staff College, Hyderabad

117. Environmental Management project—Ministry of Environment & forests, Govt. of India.

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : April 1985 : March 1990

R : B. Bowonder, S. S. R. Prasad, S. S. Arvind

S : (Ind)

118. Energy Management Case Studies—Petroleum Conservation Research Association.

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : April 1985 : March 1990

R : B. Bowonder, S. S. R. Prasad

S : (Ind)

119. Project on Economic Growth with environmental Protection.

A : Management of Energy, Environment & Technology.

O : —

M : —

Gen : June 1989 : Nov. 1990

R : B. Bowonder

S : (Ind)

120. Study of Solar Photovoltaic systems

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : June 1989 : June 1991

R : S. S. R. Prasad, B. Bowonder

S : (Ind)

121. Technological forecasting in Decision making.

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : June 1984 : Dec. 1990

R : B. Bowonder

S : (Ind)

122. Long-term technology Development—Technology Information Forecasting & Assessment Council.

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : Sep. 1989 : Dec. 1990

R : B. Bowonder

S : (Ind)

123. Preparation of a Technology Forecasting manual.

A : Management of Energy, Environment and Technology.

O : —

M : —

Gen : Aug. 1989 : Dec. 1990

R : B. Bowonder

S : (Ind)

124. Multi-Level & Regional Planning Project.

A : Development Planning in a Multi-Level Framework.

O : —

M : —

Gen : April 1985 : March 1990

R : L. Shridharan, Paramite Das Gupta, M. Surender Reddy

S : (Ind)

125. Implications of Trade Liberalisation between India and Pakistan.

A : Regional Economic Co-operation

O : —

M : —

Gen : Jan 1989 : March 1990

R : Arif A. Waqif, M. Surender Reddy Ankana Chatterjee.

S : (Ind)

126. Computer-based Management Information System Development for Kerala State Civil Supplies Corporation.

A : Computer Aided Management Project.

O : —

M : —

Gen : Jan. 1988 : March 1990

R : M. Raja

S : (Ind)

127. Information System for Maintenance Workshop for APSRTO.

A : Computer Aided Management Project.

O : —

M : —

Gen : Jan. 1985 : March 1990

R : H. S. Sai, Mukund Mohan

S : (Ind)

128. Computerised standard costing package for RIC Body Building Unit.

A : Computer Aided Management Project.

O : —

M : —

Gen : Jan. 1985 : March 1990

R : Nirmala Hindupur, Bhasker Dasgupta.

S : (Ind)

129. Implications of Trade Liberalisation between India and Pakistan.

A : —

O : —

M : —

Gen : Jan. 1989 : March 1990

R : Arif A. Waqif, M. Surender Reddy, Anjana Chatterjee

S : (Ind)

130. Multi-level and Regional Planning Project.

A : —

O : —

M : —

Gen : Jan. 1989 : March 1990

R : Arif A. Waqif, Balwanth Reddy, L. Shridharan, M. Surender Reddy, Paramita Dasgupta.

S : Planning Commission

131. Computerised sugar movement planning system for Kerala State Civil Supplies Corporation.

A : Computer Aided Management Project.

O : —

M : —

Gen : 1989 : 1990

R : Nirmala Hindupur

S : UNDP & DOT, GOI

132. Potentials and Constraints in Economic Cooperation between India and Pakistan (Commissioned by the National Coordinator for official SAARC Studies).

A : —

O : —

M : —

Gen : Sep. 1989 : completed

R : Arif A. Waqif

S : (Ind)

133. Draft Guidelines for the Design of a Training Programme in Multi-Level planning.

A : Computer Aided Management Project.

O : —

M : —

Gen : —

R : L. Shridharan and M. Surender Reddy

S : (Ind)

134. Recent Trends in Environmental Litigation.

A : Energy, Environment and Technology.

O : —

M : —

Gen : April 1989 : completed

R : B. Bowonder, S. S. Arvind

S : Ministry of Environment, GOI

135. Low Probability High Consequence Accident — An Analysis of Bhopal Accident.

A : Energy, Environment and Technology.

O : —

M : —

Gen : July 1989 : completed

R : B. Bowonder

S : Ministry of Environment, GOI

136. Environmental Management Practices at IFFCO Aonia : A case study.

A : Energy, Environment and Technology.

O : —

M : —

Gen : Nov. 1989 : completed

R : S. S. Arvind

S : Ministry of Environment, GOI

137. Environmental Management at National Fertilisers Limited, Panipet.

A : Energy, Environment and Technology.

O : —

M : —

Gen : Nov. 1989 : completed

R : S. S. Arvind

S : Ministry of Environment, GOI

138. An analysis of Japanese Electronics Industry : Some Lessons for India—Repor - I.

A : Technology

O : —

M : —

Gen : July 1989 : completed

R : B. Bowonder, T. Miyake

S : TIFAC (Delhi)

139. Technology Forecasting & Technology information systems in Japan for Decision making for catching up in Technology Report - II.

A : Technology

O : —

M : —

Gen : Dec. 1989 : completed

R : B. Bowonder, T. Miyake

S : TIFAC (Delhi)

140. Technological forecasting : Methodologies & case studies Report - III.

A : Technology

O : —

M : —

Gen : Feb. 1990 : completed

R : B. Bowonder

S : TIFAC (Delhi)

41. Energy Management at a Petrochemical Industry — A Case Study.

A : Technology

O : —

M : —

Gen : August 1989 : completed

R : S. S. R. Prasad, S. K. Awasthi

S : Ministry of Petroleum, GOI

42. Energy Management for Manufacturing Industries : A Bibliography.

A : Technology

O : —

M : —

Gen : Sep. 1989 : completed

R : S. S. R. Prasad, C. V. R. Krishna, D. S. Prasad.

S : Ministry of Petroleum, GOI

3. Evaluation study of solar photovaltaic systems.

A : Technology

O : —

M : —

Gen : ongoing

R : S. S. R. Prasad, B. Bowonder

S : Ministry of Petroleum, GOI

144. Evaluation of solar photovoltaic systems (to centralized SPV systems studied such as BHEL & ESI).

A : Technology

O : —

M : —

Gen : Sep. 1989 : completed

R : S. S. R. Prasad, C. V. Ramakrishna, D. S. Prasad.

S : Ministry of Petroleum, GOI

145. Organisational climate and its impact on various aspects of work life in public sector organisation.

A : —

O : —

M : —

Gen : —

R : Pritam Singh

S : ICSSR

146. The Value profile of IAS

A : Technology

O : —

M : —

Gen : —

R : Pritam Singh, Asha Bhandarkar

S : ICCSR

147. Leadership and Management of Women Executives/Entrepreneurs.

A : Technology

O : —

M : —

Gen :

R : Kokila Parthasarathy

S : ICMPP, Malaysia

148. Corporate social accountability

A : Technology

O : —

M : —

Gen :

R : G. R. S. Rao

S : Ford Foundation

149. End Line Evaluation of Family Welfare Project sponsored by UNFPA/ ILOs in AP.

A : Technology

O : —

M : —

Gen :

R : G. Narayana

S : Ministry of Health and Family Welfare, GOI.

University of Mysore

150. The performance of Primary Co-operative Agriculture & Rural Development Banks in Karnataka — A Study of Hassan District

A : Co-operation

O : Evaluation of Trends in the growth of long term Financial Institutions in rural Karnataka, study the impact of Long-term credit on farm households and the causes for overdues and finding suitable remedies.

M : Primary and Secondary data

Ph. D. : April 1989 : ongoing

R : N. N. Puttaswamy

S : G. T. Marulasiddappa

151. Impact of well Irrigation on Agricultural Development in Tamil Nadu : A Case Study of Madurai District.

A : Agricultural Economics

O : To determine the input-output relationship with respect to well irrigation water for the production of important crops by small, medium and large farmers, examine the impact of well irrigation on intensity of cultivation, cropping pattern and farm income among the small, medium and large farm size.

M : Random sampling method and primary and secondary data used.

Ph. D. : May 1988 : ongoing

R : D. Swamikannan

S : G. T. Marulasiddappa

Cochin University of Science and Technology

152. A survey of literature on the economic analysis of technological change.

A : Technology & development

O : —

M : —

M. Phil : June 1990 : Dec. 1990

R : S. Muralidharan

S : —

153. Federal financial relations with special reference to Kerala.

A : Public Finance

O : To analyse the financial relations of the state of Kerala with the centre for the period 1956–1985 and examine the state finance, terms of its reference and expenditure – statutory transfer. Non-statutory transfer – fiscal requirements and its dependants on the centre.

M : Secondary data from official publications for the period 1956–1985.

Ph. D. : May 1985 : awarded

R : M. A. Lizy

S : K. C. Sankaranarayanan

154. Expert-oriented industrialisation & industrial backwardness : A study of Kerala.

A : Industry

O : To examine the role of colonial rule in developing the Kerala economy as an export-oriented one; look into the region-specific factors which were conclusive for the perpetuations of the export-oriented developme path, analyse how the export-oriented industrialisation and industrial backwardness are interrelated to each other.

M : Historical and explorative, secondary data.

Ph. D. : Jan. 1987 : ongoing

R : Suja A. N.

S : M. K. Sukumaran Nair

155. Linkages of electrical machinery industry — A case study of Kerala.

A : Find out whether the electrical machinery industry is generating any linkages in the economy of Kerala; if the industry is not generating linkages, the logic behind the starting of this industry on the location theory framework.

O : —

M : Secondary sources – ASI data and Primary source – the factories.

Ph. D. : Jan. 1987 : ongoing

R : Ushakumari K.

S : M. K. Sukumaran Nair

156. Efficiency in central public sector enterprises in Kerala : An analysis of capacity utilisation, profitability and productivity.

A : Public sector

O : To analyse capacity utilisation, profitability and productivity of the manufacturing central public

sector enterprises in Kerala for the last 10 years.

M : Analytical study

Ph. D. : June 1987 : June 1991

R : Anthony M. T.

S : Jose T. Payyappilly

157. Working of industrial operation in Kerala.

A : Applied Economics

O : —

M : —

Ph. D. : March 1988 : ongoing

R : Velayudhan K. V.

S : N. Chandrasekhara Pillai

158. Economics of rubber leased industry in Kerala.

A : Industrial Economics

O : To study the development of rubber based industry in Kerala, analyse the trends in input and output prices, the productivity use, efficiency, capacity utilisation and functional problems of the rubber based industry in Kerala.

M : Analytical and sample survey

R : Raju K. V.

S : Jose T. Payyapilly

159. Inter state variations in centre-sector investments in India.

A : Public Finance

O : To ascertain the long term trends in investments in different states, look into the economic, sociological political and social reasons that might explain these variations and suggest an alternative framework to evolve suitable guidelines to govern centre-sector investments in states.

M : The study covers the major Indian states for a fairly long period of time.

Ph. D. : Aug. 1988 : ongoing

R : Elezabeth M. P.

S : M. K. Sukumaran Nair

160. Social stratification and consumer behaviour in Kerala : A study with special reference to consumer durables.

A : Consumer Economics

O : To Identify different social classes in Kerala and the consumption pattern of the different social classes, analysis of decision process and decision makers, sources of information and relative influence of various sources and choice criteria and study of innovation and adoption.

M : Cross-section analysis of the consumer market in Kerala. A consumer survey (qualitative) undertaken. A sample of household from urban, semi urban and rural markets selected.

Ph. D. : July 1989 : ongoing

R : J. C. Edison

S : G. Anthony

ıharathidasan University

ɢ1. Effects of Govt. housing politics — A case study of RLEGPs, TAHDCO ın Pudukkottai.

A : Housing

O : To find out the effectiveness of Govt. housing policies which have been introduced for poor people by way of analysing living conditions and socio-economic conditions through RLEGP & TAHDCO.

M : Primary data

M. Phil : 1988 : 1989

R : G. Bhuvaneswari

S : S. Iyyampillai

Evaluation of National Rural Employment Programme (NREP) – A study in Ariyalur Block of Trichy District.

A : Rural Employment Programme

O : To study efforts to fulfil the objective of NREP in this block, there is no significant improvement in living standard and also it is temporary from 3 to 6 months and poor conditioned assets are created, wages under programme is less than the local as well as Minimum Wages Act etc.

M : Sample study of Ariyalur block, Evaluation method.

M. Phil : Sep. 1988 : Sep. 1989

R : R. Rajendran

S : S. Lakshmi

163. Economics of Traditional and Modern farming in Peruvalappur village.

A : Traditional aı ɉ Modern Agriculture

O : To study cost and return aspects of traditional and modern methods of cultivation, validity of profit maximisation and re-switching to traditional method from modern method.

M : Random Sampling

M. Phil : 1988 : 1989

R : K. Thenmozhi

S : S. Neelakantan

164. Adoption of New Technology Components, in Agriculture, Pudukottai District of Tamilnadu.

A : Agricultural Economics

O : To study the determinants of adoption of New Agricultural Technology and its impact on various classes of cultivators.

M : Assured irrigated area selected. Primary and secondary data used.

Ph. D. : Jan. 1989 : Jan. 1991

R : A. Narayanamoorthy

S : V. B. Athreya

Madurai Kamaraj University

165. Economics of Fertilizer use in Rice Production : A Case study.

A : Agricultural Economics

O : —

M : —

Gen : Aug. 1988 : March 1990

R : G. Subramaniyan & V. Nirmala

S : (Ind)

166. Socio-Economic conditions of Small Fishermen in Thanjavur District.

A : Fishery Development

O : To examine the income, expenditure, savings and indebtedness of small fishermen using catamarans for fishing operation.

M : 209 households were selected on the basis of proportionate random sampling technique.

Gen : March 1988 : Dec. 1989

R : N. Durairaj, P. V. Hariharan

S : (Ind)

167. Entrepreneurship in Madurai District

A : Industrial Economics

O : To examine entrepreneurship in small scale and large scale industry in Madurai District.

M : Principal components

Gen : May 1989 : June 1989

R : Department of Economics

S : MKU

168. A study of paper industry in India with special reference to Tamilnadu.

A : Industrial Economics

O : To know the elasticities of output with respect to capital and labour, returns to scale and technological progress of the paper and paper board industry in India from 1960 to 1983.

M : Production function approach

Ph. D. : Jan. 1987 : Nov. 1991

R : A. Duraisamy

S : T. Valuthi Varaguna Singh

169. A study of Handloom Weavers in Madurai District, Tamilnadu.

A : Labour

O : To assess the economic status of handloom weavers, study the organisational structure of the industry and the Govt., programmes of Development of Handloom industry.

M : Statistical–trend and regression Analysis – both primary and secondary data collected.

Ph. D. : May 1988 : 1990

R : S. M. Sukumari

S : N. Durairaj

170. Economics of Salt-Industry in Chidambaranar District.

A : Industrial Economics

O : To estimate cost of production of salt per acre of land and per tonne of salt, analyse the relationship between various inputs and output by fitting suitable production function, measure the seasonal variations in the production of salt, study about various problems of marketing of salt and examine the labour

problems in the industry and study their living conditions.

M : Sampling technique and appropriate quantitative tools.

Ph. D. : Sep. 1988 : Sep. 1990

R : M. Kamalraj alias Thinakaran

S : T. Valuthi Varagunasingh

171. Cotton Production and Price Policy – Some Theoretical and Empirical Analysis.

A : Agricultural Economics

O : To estimate the area, yield and production of cotton for various states in India, study the impact of area response and supply response, examine the cost and return structure and analyse the price policy.

M : Regression and Nerlovian models.

Ph. D. : Jan. 1989 : Jan. 1994

R : T. A. Subramanian

S : G. Subramaniyan

172. Economics of Export Trade in Medicinal herbs from Chidambaranar and Nellai Kattabomman District.

A : Export Trade

O : To identify the trend of medicinal plants exports till 1988, find out the foreign exchange earnings and the problems connected in those exports.

Ph. D. : March 1989 : March 1992

R : C. Thangaraja

S : R. E. Benjamin

173. Economics of Industrial pollution Control in Tamilnadu.

A : Environmental Economics

O : Analysis of pollution emitted, cost of pollution control, effect of pollution control on profit price of the commodity and Tamilnadu economy.

M : Selection of five each from small, medium and large scale industries.

Ph. D. : March 1989 : March 1992

R : S. Nagaraja Murugan

S : G. Velan

174. Economics of Migration in Madurai city, Tamilnadu.

A : Economics of Migration

O : To know the causes of rural to urban migration, the consequences of migration and the rural/urban link.

M : Based on primary data

Ph. D. : Aug. 1989 : ongoing

R : A. Solucis Santhapparaj

S : R. Sankararamalingam

175. IRDP and Poverty Alleviation with special reference to Periyar District in Tamilnadu.

A : Developmental Economics

O : To assess the impact of IRDP on the economic conditions of the beneficiary households.

M : Primary and secondary data

Ph. D. : Jan. 1989 : 1991

R : S. K. Thangamani

S : T. Valuthi Varaguna Singh

176. A study of Socio-Economic conditions of cleaning workers of Madurai Corporation and their role in urban development.

A : Labour Economics

O : To assess the socio-economic conditions of cleaning workers, the income and expenditure pattern of cleaning workers and their wage structure.

M : Statistical tools-trend, correlation and regression analysis, primary and secondary data collected.

Ph. D. : Dec. 1989 : ongoing

R : R. Duraipandi

S : G. Velan

177. A study of Finances of Municipalities in Kamarajar District.

A : Public Finance

O : To examine the trend and pattern of revenue of Kamarajar District Municipalities, bring to sharp focus the pattern of expenditure of study, identify the financial problems if any, by the study unit.

M : —

Ph. D. : Feb. 1990 : Feb. 1993

R : S. Rajendiran

S : M. V. Sachitanandam

Centre for Research on New International Economic Order, Madras

178. Managing the demand for Petroleum Products in Road Transport Sector.

A : Transport energy economics

O : To examine past and present consumption patterns of petroleum products by the Road Transport Sector, arrive at methods of saving energy and maximising fuel efficiency, review and evaluate government policy and practices in the area of energy conservation and soil substitution, and using recent energy demand forecasts for the year 1990 and 2000, attempt made to suggest suitable demand management policies relating to consumption of diesel and petrol.

M : Time series and cross section data on the petroleum and transport sectors analysed to discern long term trends/changes in these sectors. Case study method using secondary data to analyse transport energy consumption patterns in the movement of passengers and freight in a particular region adopted.

Ph. D. : April 1982 : Degree awarded.

R : Koshy M. Cherail

S : K. Rajarathnam

179. Analysis of International commodity trade and export instability with reference to regional co-operation of selected countries and commodites.

A : International Economics

O : To examine critically the background of international trade relations vis-a-vis trade theories, international trade institutions and negotiations, observe pattern in global trade during 1961-82 for selected DCs and LDCs, whether Producers of PCs are major exporters, nature and extent of instability and causes for variations in export prices, issues, prospects and mechanisms for ECDC and to discuss the policy implications of the study.

M : For finding the nature and extent of instability, linear trend equations of the form $Y = a + bt + ut$ is estimated. In measuring instability the variations around the trend as estimated by OLS method of Leith is adopted. An export response function is also used to identify major determinants of exports of selected commodities.

Ph. D. : April 1982 : March 1990

R : V. Jacob John

S : K. Rajaratnam

180. Commercial bank finance to weaker sections (with particular reference to Chinglepet District).

A : Monetary Economics

O : To assess impact of bank credit on weaker sections, implementation of various schemes, uses of funds, special emphasis to be laid on the terms of lending under DIR scheme, IRDP and review the achievements of important parameters and pinpoint the avoidable deficiencies in the process of implementation with reference to what was envisaged in the formulation of the programme.

M : Case study method

Ph. D. : April 1983 : April 1985

R : S. Subedha

S : K. Rajaratnam

181. Fulfilment of basic needs in India

A : Poverty

O : To assess relative importance assigned to the fulfilment of basic needs as compared to other sectors in the Five Year Plans, the pattern of consumer expenditure in India, incomewise and the fulfilment of basic needs with reference to selected districts in Tamil Nadu.

M : Intensive study of selected districts of Tamilnadu from primary data.

Ph. D. : April 1983 : 1987

R : Alamelu Rambhad

S : K. Rajarathnam

182. Tribal Development in Tamilnadu since 1950 with special reference to Malayali and Irula Tribes of South Arcot, Salem and Chinglepet Districts.

A : Development Economics

O : To study socio-economic

problems of the scheduled tribes in Tamilnadu, the programmes implemented by the Government and voluntary agencies with reference to tribal sub-plan in Tamilnadu and formulate a new strategy for planning and administration.

M : —

Ph. D. : Jan. 1985 : Jan. 1987

R : N. Sundararaj

S : K. Rajaratnam

Madras Institute of Development Studies

183. The economic impact and social implications of the public distribution system in Tamilnadu.

A : Development Economics

O : To examine the trends in the procurement operations of the civil supplies corporation, study the interlinkages between the controlled market and the free open market in terms of purchases, distribution, price, institutional arrangements etc; and to examine alternative strategies for increasing the public distribution of essential commodities in Tamil Nadu.

M : Analysis of Secondary and primary data through statistical and survey methods.

Ph. D. : Feb. 1984 : ongoing

R : C. Annadurai

S : C. T. Kurien

184. The Millet Economy of Tamilnadu

A : Agricultural Economics

O : To assess the changes in area, yield and production of major millets in the past three decades; understand the purposes of growing millets (home consumption, market, livestock, kind wage payment etc.) analyse the price and demand aspects of millets.

M : Time series secondary data and cross section primary data collected from the field survey.

Ph. D. : Feb. 1984 : ongoing

R : M. S. Edwin Innocent

S : R. N. Poduval

185. Groundnut Economy of Tamilnadu

A : Agricultural Economics

O : To identify and analyse the nature and sources of patterns in growth and instability of groundnut area, yield and production within Tamilnadu —1960-61 to 1980-81; identify pattern of growth and instability in groundnut area, yield and production across Tamilnadu, and study the factors underlying the different patterns of growth and instability.

M : Identified 8 important groundnut growing districts in Tamilnadu; to study growth and instability, 5 year moving average and percentage deviation from this trend analysed for proximate factors underlying different patterns use, a series of decomposition exercises done and for identification of actual

factors influencing changes in area and yield supply response analysis used.

Ph. D. : June 1985 : ongoing

R : Asha Krishnakumar

S : Vaidyanathan

186. Temples, tenants and agrarian relations.

A : Rural Economics

O : To understand the evolutionary process of the existing land relations under the above religious institutions, how far the particular forms of land relations hinder/ help the development of productive forces in agriculture and the effect of the particular land tenure–under which the religious institutions control the lands-on productivity and growth.

M : Historical materials mainly from Tamilnadu archives to understand the evolutionary process of inam tenure and the changes in methods/modes of land management atleast from the British period and field work in areas where the religious institutions control land, board, and other relevant individuals. Samples will be based on scientific methods.

Ph. D. : June 1986 : ongoing

R : R. Vidya Sagar

S : A. Vaidyanathan

187. Bovine Economy of Tamilnadu

A : Livestock

O : To bring out the factors that are responsible for a change in Bovine density and composition.

M : —

Ph. D. : 2.2.1987 : ongoing

R : George Mathew

S : A. Vaidyanathan

188. Urbanisation of Tamilnadu, 1901-81

A : Urban Economics

O : To study the process of urbanisation in Tamilnadu over this century that is from 1900-1980, identify various patterns of urbanisation obtaining in the state and examine the factors underlying few of the district patterns.

M : —

Ph. D. : July 1987 : ongoing

R : Rukmani Ramani

S : K. Nagraj

189. Factors determining Fertilizer consumption and its growth in Tamilnadu: 1950-89.

A : *Agricultural* Economics

O : To study the fluctuations and trends in fertilizer use, the diffusion and intensity of fertilizer use under irrigated and unirrigated conditions, the factors responsible for variations in fertilizer use, technological, economic and institutional factors and analyse

the importance of agricultural extension and fertilizer research on educating farmers to apply appopriate fertilizer nutrients.

M : Study is based on time series secondary data. Techniques such as growth rates, stepwise multiple regression and simple correlation regression applied.

Ph. D. : Jan. 1986 : ongoing

R : T. C. Mohanam

S : A. Vaidyanathan

190. Structure and Organisation of Brick Industry in Tamilnadu.

A : Industrial Economics

O : To explore the differences in the structural characteristics of Brick industry across various districts of Tamilnadu.

M : Sample survey

Ph. D. : June 1987 : ongoing

R : E. Manoharan

S : A. Vaidyanathan

191. Conjunctive use of surface and ground water in Tamilnadu Agriculture.

A : Agricultural Economics

O : To understand above phenomenon at macro level will be conducted on important irrigation system in Tamilnadu using secondary data and at Micro level to understand the problem in detail. Case studies of irrigation system conducted covering both and tank irrigation.

M : —

Ph. D. : March 1988 : ongoing

R : P. Anbazhagan

S : A. Vaidyanathan

192. Irrigation Organisation under two major tanks in Tamilnadu.

A : Irrigation

O : —

M : To have an indepth understanding of the process of change in the irrigation system which is mainly influenced by changes in land control, demographic pressure and agricultural technique from the past to the present time and to see how these adaptations have come about and with what consequences to the efficiency of water management and its effect on productivity.

Ph. D. : ongoing

R : K. Sivasubramaniyan

S : A. Vaidyanathan

193. Industrialisation and Health : A study of Tanning and Leather Industry in Tamilnadu.

A : Industrialisation and Health

O : To review the economic history of the industry, analyse the process involved, chemicals used and its impact on the health

of the labourers and legislative measures enforced, enacted and/ or implemented in the industries.

M : —

Ph. D. : Oct. 1989 : ongoing

R : Millie Nihila

S : Padmini Swaminathan

194. Educational status of women in India with special reference to Tamilnadu

A : Women and Education

O : To study the past and present educational status of women in India/Tamilnadu, differential participation by way of caste, class and gender in the education process and inter-generational mobility among women with regard to their educational status.

M : Diachronic and comparative

Ph. D. : Feb. 1990 : ongoing

R : R. Akila

S : P. Radhakrishnan

195. Public Health Services in Tamilnadu

A : Health

O : To analyse mortality and morbiblity, distribution of medical and paramedical personnel in Tamilnadu and financing public health services (from 1970-71 to 1987-88).

M : —

Gen : Nov. 1988 : ongoing

R : Millie Nihila

S : A Vaidyanathan

Stella Maris College

196. A study of the efficiency of HYV Paddy — A cost return analysis.

A : Agricultural Economics

O : To test the efficiency of HYV Paddy in terms of the cost of production and the returns of HYV Paddy differs for the different categories of farmers.

M : Primary data

M. Phil : Aug. 1989 : Oct. 1990

R : Gretta Francis

S : S. Ramani

197. Performance of the commercial vehicle industry of India — A case study of Ashok Leyland Limited.

A : Automobile Industry

O : To study the performance of Ashok Leyland Limited over the past 10 years, the trend in production and sales of Ashok Leyland over the past 10 years in relation to production and sales of the total commercial vehicle industry in India (w.r.t. buses and trucks), forecast sales for the next five years and conduct an opinion poll survey on dealers to know the variables affecting purchase decision of buyers.

M : Secondary data and interview with executives concerned.

M. Phil : Aug. 1989 : Oct. 1990

R : T. Anuradha

S : Geetha Sridharan

198. Tourism in Tamilnadu (Economic Aspects).

A : Industry (Tourism)

O : To review the present scenario of tourism in the state, guage the economic benefits from this industry in the form of foreign exchange earnings, employment generation, development of ancillary industries etc.

M : Secondary data

M. Phil : Aug. 1989 : Oct. 1990

R : Asha Mary Alexander

S : Chellam Mitran

199. Cost-Benefit Analysis of on-the-job training.

A : Labour Economics

O : To study cost-benefit of on-the-job training to the company, to the trainees and job-satisfaction of the trainees.

M : Primary and secondary data

M. Phil : Aug. 1989 : Oct. 1990

R : Sheela Sam

S : Chandunissa

200. Unemployment and Inflation Trade – off in India (1980-89).

A : Monetary Economics

O : To study the trend of unemployment and inflation in India (1980-89), test the relevance of Phillips curve to India.

M : Secondary data : Using the tool of Auto-correlation.

M. Phil : Aug. 1989 : Oct. 1990

R : D. Hima Bindu

S : Latha

EDUCATION

Madurai Kamaraj University

201. Teacher Effectiveness of Student Interest.

A : Teacher Education

O : To study the relationship between teacher and student.

M : Experimental method

M. Phil : 1988 : 1989

R : V. Shyamala

S : P. N. Muthiah

202. Chemistry Curricular Potentials of Chemical based Small Scale Industries.

A : Chemistry Education

O : To identify the chemistry curricular potentials of 17 kinds of chemical based small scale industries, find out the reactions of teachers and entrepreneurs regarding student's visit to industries for learning of chemistry.

M : The curricular potentials – content, chemical functions learning experiences and evaluation items were worked out for 17 kinds of industries. Interview held with 30 teachers and 34 entrepreneurs.

M. Phil : Jan. 1989 : Dec. 1989

R : M. Savadamuthu

S : M. Krishnan

203. Development of Computer Assisted Instruction Programme on 'Leaves'.

A : Educational Technology

O : To develop a computer software material for teaching 'Leaves' for IX std. students and validate the computer program on 'Leaves'.

M : Development of the programmed material on 'Leaves' and criterion test for that, convert the material into CAI and validate the material.

M. Phil : Jan. 1989 : Sep. 1989

R : Nachi Muthu

S : Subramania Pillay

204. Oral Examination as a instrument of diagnostic evaluation.

A : Educational Evaluation

O : To find out the preference of the Madurai city Hr. Sec. School teachers towards oral and written exam., their attitude towards oral exam as an instrument of diagnostic evaluation.

M : Survey method

M. Phil : Jan. 1989 : Sep. 1989

R : C. C. Thanga Mani

S : G. Subramania Pillay

205. Evaluation of UGC Countrywide Educational — Television

A : Educational Technology

O : To verify the extent to which UGC countrywide ETV enriches knowledge, promotes development, utilises potentiality of TV medium, caters to the needs of target population and Indian production is comparable in quality to foreign ones.

M : Message system analysis undertaken which tries to find out the appropriateness of the communication.

M. Phil : Jan. 1989 : Feb. 1990

R : I. Arul Aram

S : G. Subramania Pillay

206. Construction and Standardization of a Scientific Temper Inventory.

A : Research Methodology

O : To construct and standardise an Inventory for the assessment of scientific, temper among UG and PG student in Arts and Science colleges, evolve norms and prepare an inventory manual.

M : The pre try out of the inventory, consisting of 80 items was done with 50 students and few experts. Try out was done with 370 students. The final inventory was administered to 1000 students.

M. Phil : Jan. 1989 : Oct. 1989

R : G. Bhuvaneshwari

S : K. Krishnan

University of Madras, Department of Adult and Continuing Education

207. A critical study of the participants' Evaluation of selected post-graduate courses of correspondence education programme of the Madurai Kamaraj University.

A : Evaluation

O : To evaluate the different aspects such as the units, Radio broadcast-instructors, Contact seminar, text books, methods of teaching support services and identifying reasons for the choice of this mode.

M : Survey, Questionnaire cum Interview, Qualitative cum Quantitative.

Ph. D. : 1979 : 1983

R : Gomathi Mani

S : R. Jayagopal

208. A study of environmental perception of rural adults in Chingelput district of Tamilnadu.

A : Andragogy

O : To study the environmental perception of rural adult, study factors affecting environmental perception of rural adult and the effectiveness of mass media on environmental perception of rural adult.

M : Ex post Facto Design

Ph. D. : May 1982 : Dec. 1986

R : N. V. R. Kapali

S : R. Jayagopal

209. A study of the educational needs of the muslim women in the city of Madras and developing an appropriate non-formal education curriculum.

A : Andragogy

O : To find out the non-formal educational needs of the muslim women and develop a need based non-formal education curriculum frame.

M : Survey method

Ph. D. : Jan. 1984 : July 1987

R : Naseem Akthar

S : R. Jayagopal

210. Human Resources Development through multimedia forums with specific reference to Radio forums.

A : Communication

O : To study radio, TV and animator used to deliver developmental messages to the rural illiterate adults in different combinations and knowledgeable attitude change of the learners through these forums.

M : Quasi experiment

Ph. D. : Oct. 1984 : June 1990

R : N. Nagarajan

S : R. Jayagopal

University of Madras
Department of Education

211. Proactive and Reactive Management Behaviour of Heads of Institution in Higher Secondary Schools.

A : Educational Management

O : To study whether men heads of schools are more reactive than proactive; women are more proactive; there is no relation between managerial behaviour and sex and experience.

M : Survery method

M. Phil : Oct. 1988 : Dec. 1989

R : S. Booma

S : P. S. Balasubramanian

212. Peace Education in high school curriculum.

A : —

O : To study whether peace concepts are taught in schools as content of subject matter and high school teachers teach more peace concepts than higher secondary school teachers.

M : —

M. Phil : Oct. 1988 : Dec. 1989

R : S. Thankappan

S : P. S. Balasubramanian

213. Stress among college students

A : Higher Education

O : To study whether college student stress inventory are valid, reliable. Several internal and external factors cause stress in college students such as uncertainity about future career, curriculum, pattern of college environment, stress anxiety positively related success, college students lack knowledge of scientific stress coping strategies.

M : Descriptive and correlational survey.

M. Phil : Oct. 1988 : Dec. 1989

R : S. Malathi

S : Cynthia Pandian

214. Management of Education : A comparative study of John Dervey and Mahatma Gandhi.

A : Management

O : To identify by means of conceptual analysis whether and if so, how far the educational experiments of Mahatma Gandhi and John Dervey embodied modern concepts of educational management. A comparison of these two educationists, approach to educational managemen *via* these modern concepts is made.

M : —

M. Phil : Oct. 1988 : Dec. 1989

R : Philip Joseph

S : D. Raja Ganesan

215. Organisational behaviour — Headmasters, Leadership style and

organisational alienation among teachers in Higher Secondary Schools.

Management of Education

O : A survey of the relationship between different leadership styles — initiating structure and considerateness of Headmasters and the alienation among teachers in higher secondary schools is done.

M : —

M. Phil : Oct. 1988 : Dec. 1989

R : Samuel Gnanadurai

S : D. Raja Ganesan

216. Stress among college teachers

A : Higher Education

O : To study several internal and external factors that cause stress, most important of them are student indiscipline, student potential and leadership. Age, experience, qualification and need gratification reduce stress. Autonomous colleges increases stress in government colleges, but reduces in private colleges.

M : Descriptive and correlational survey.

M. Phil : Oct. 1988 : Dec. 1989

R : N. Latha

S : Cynthia Pandian

217. A study of burnout among college teachers.

A : Higher Education

O : To study the extent of burnout is more among men teachers (in colleges) than among women teachers, extent of burnout among teachers for private colleges is more as compared to those in Govt. colleges and extent of burnout is more among teachers with Research Degrees than among those without them.

M : Survey using the adoptation of Hock's burnout scale and another tool constructed by the researcher having 4 parts.

M. Phil : Oct. 1988 : Dec. 1990

R : Rukmani

S : Ethel Selina Balachandran

218. A study of pre-school teacher training curricula and the teacher effectiveness of the Teachers in pre-schools

A : Preschool Teaching

O : Trained teachers (pre school) are significantly better than untrained teachers in respect of effective teaching, experienced teachers are significantly better than the less experienced teachers and trained teachers with experience are significantly better than untrained teachers with experience.

M : Survey using Rating scales

M. Phil : Oct. 1988 : Dec. 1989

R : N. Banu Murti

S : Ethel Selina Balachandran

219. Failure Tolerence and Academic risk taking in High School students.

A : Educational Psychology

O : To study whether one-fourth of the sample found to be having failure tolerence, one-fourth of the sample identified to be having the risk taking behaviour, there is significant positive relationship between failure tolerence, academic risk taking and academic achievement and sex has no influence on school failure tolerence.

M : Normative method

M. Phil : Oct. 1988 : Dec. 1989

R : P. Selvaraj

S : D. Kumaran

220. Intellect Profile Hemisphericity and problem solving ability in Mathematics of VIII standard students.

A : Mathematics Education

O : To study if there is relationship between hemisphere dominance and certain cognitive abilities viz. memory, deduction, convergent thinking, symbolic thinking. Gender differences are also observed in certain cognitive abilities viz. cognition, deduction, convergent thinking.

M : —

Ph. D. : 1984 : 1989

R : A. Sengottaiah

S : P. S. Balasubramanian

GEOGRAPHY

Sri Venkateswara University

221. Identification and Development of Wastelands and some watershed programmes in Chittor district, Andhra Pradesh.

A : Agricultural Geography and Urban Geography.

O : To identify the wastelands and study the reasons for it and recommending the reclamation methods and to suggest the probable crops to grow in the land.

M : —

Gen : March 1990 : Dec. 1990

R : N. Nagabhushanam

S : (Ind)

HISTORY

University of Hyderabad

222. Social Groups Involved in Production and Administration of Early Medieval Western Deccan (A.D. 800 – A.D. 1200).

A : Ancient Indian History

O : Collection of data on social groups and administrative positions from inscriptions of three dynasties ruling Western Deccan between A.D. 800 – 1200.

M : —

M. Phil : Aug. 1988 : Sep. 1989

R : P. Tejaswini

S : Aloka Parasher

223. Material and Social Formation in Early Deccan.

A : Ancient Indian History

O : Collection of data from archaeology and coins on the socio-political transition from tribe to state in early Deccan.

M : A multi-disciplinary approach to study state formation in early societies.

M. Phil : Aug. 1989 : Sep. 1990

R : D. Nagamani

S : Aloka Parasher

224. Evaluation of creches in the organised and unorganised sectors in Hyderabad (Sponsored by Department of Women and Child Development, Government of India (1989-90).

A : —

O : To study organised sector — Public and private factories, State and Centre aided creches for backward classes and unorganised sector to assess the need for a creche.

M : Interview schedules with management, creche workers, creche users, non-users, trade unions and informal interviews with various respondents.

Gen : March 1989 : March 1990

R : Rekha pande and J. Kameshwari

S : (Ind)

225. A source book on Social and Economic History of Early Deccan.

A : Ancient Indian History

O : —

M : Collection of data from archaeology, inscriptions, coins and literature, their organisation on thematic lives and use of computational facilities.

Gen : Aug. 1988 : Aug. 1991

R : Aloka Parasher

S : (Ind)

226. Origin and Growth of Ganapatya Cult in India.

A : Religion

O : —

M : —

Gen : 1988 : 1990

R : T. R. Sharma

S : (Ind)

PHILOSOPHY

Karnatak University

227. Philosophy of Sri Tontada Siddha Lingeshvar.

A : Philosophy

O : To explore the relationship of Tontada Siddha Lingeswara — a 15th century Veerasaiva Saint — to panentheism as developed by A. N. Whitehead and Charles Hartshorne.

M : The thought of the Saint is first reconstructed in the perspective of contemporary analytical philosophers of religion like Richard Swinburne, H. N. Castaneda and Norman Kretzmann. The reconstruction is then subjected to a rigorous examination especially with reference to panentheism, and it is finally concluded that there are some significant differences between Tontada Siddha-Lingeswara's thought and panentheism, and that as a consequence the former can at best be described as qualified panentheism.

Ph. D. : 1979 : ongoing

R : I. S. Kumbar

S : L. C. Mullatti

228. Virasaivism and Integralism of Aurobindo.

A : Philosophy

O : To compare between the Virasaivas' and Aurobindo's conception of God as a self-conscious supreme being who, unlike the *nirguna-brahman* of Sankara, is inseparably related to Sakti. Sakti is not a person, or simply a quality, but the body of Parasiva, which as a result of his free willing transforms into the world of life, mind and matter. The aim of the individual, both to the Saranas and to Aurobindo, is to become one with Sat-Cit-Ananda (Parasiva) from whom he thinks he is temporarily separated.

M : Analytical Method

Ph. D. : Sep. 1982 : ongoing

R : M. K. Kattagihallimatha

S : N. G. Mahadevappa

229. Whitehead and Virasaism (with special reference to some Vacanakaras)

A : Philosophy

O : To study Alfred North Whitehead's Philosophy and the Vanchanakaras, similarities between the two systems of thought as far as religion, God, world etc.

M : Comparative study of these topics (Religion, God World etc.) in whitehead and Veerashaivism.

Ph. D. : June 1986 : ongoing

R : M. A. Jalihal

S : N. G. Mahadevappa

230. Personal Identity

A : Philosophy

O : To study the philosophical problem of Personal identity as broadly stated as "What does it mean to say that a person whom I saw at T_1 is the one whom I saw at T_{10}?". The discussion centres round the problems of what is a person or what are the criteria of a person, what is meant by change, and, more importantly, what is meant by 'Same'. The research work aims to discuss the classical conceptions of personal identity, like that of Plato, Aristotle, Descartes, Locke, Hume and others, and also the contribution to this discussion made by modern philosophers like Bishop Butler,

Thomas Reid, Richard Swinburne, Sydney Shoemaker, Derck and Parfit.

M : Analytical Method
Ph. D. : July 1986 : ongoing

R : Amruta Deshpande

S : N. G. Mahadevappa

231. Intentional Actions

A : Philosophy

O : To differentiate between actions and events whether intentional actions are the effects of our intentions, definition of "intention" and distinguish it from other mental events, relation between intention and intentional action, if any, whether the same intention always results in same action or are there some actions not followed by any intention?

M : Analytical Method
Ph. D. : Aug. 1988 : ongoing

R : R. N. Hegde

S : N. G. Mahadevappa

POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

Sri Venkateswara University

232. Non-Alignment and Indo-Soviet Relations — 1966-77.

A : Indo-Soviet Relations (International Relations).

O : —

M : —
Ph. D. :—

R : Venkata Subbaiah Chennu

S : K. Madhu Sudhan Reddy

233. Agitation for separate Andhra — A case study

A : —

O : To throw light on various political, economic and other such reasons that led to the outbreak of the agitation, why the agitation had failed though it was carried relentlessly for a period of 6 months.

M : —
Ph. D. : 1987 : ongoing

R : A. Balaramaiah

S : K. V. Narayana Rao

234. The Impact of Indo-Soviet Treaty on India's Policy of Non-Alignment

A : International Studies

O : The present study is to know the background for signing the Treaty of 1971, whether India has deviated from its policy of non-alignment and the impact of the Treaty on India's policy of non-alignment.

M : Inter-disciplinary
Ph. D. : Nov. 1989 : 1990

R : B. V. Muralidhar

S : M. V. Subbarao

235. Urban Politics Perspective : A Study of Cuddapah Town in Andhra Pradesh.

A : Public Administration — Urban Politics, Local Self Government.

O : To study urban community as operating between two environment : the socio-economic structure of the community itself experiencing changes through new problems to be tackled by the decision making approach.

M : Secondary — Primary data, conducted field interviews, participant observation.

Gen : March 1987 : March 1989

R : M. A. Hussain

S : (Ind)

236. India and Star Wars

A : International Studies

O : A nuclear war cannot be won and therefore must never be fought. Star wars are both destabilising and provocative. India prefers negotiated arms control agreements to the deployement of Strategic Defence Initiative (Star Wars).

M : Interdisciplinary

Gen : Nov. 1987 : Oct. 1989

R : M. V. Subbarao

S : (Ind)

Bangalore University

237. Kashmir Problem

A . —

O : —

M : —

M. Phil : 1988 : ongoing

R : Sreekumar

S : R. L. M. Patil

238. National Interest Estimation : Farakka Issue.

A : —

O : —

M : —

M. Phil : 1990

R : Kalpana

S : R. L. M. Patil

239. U.S. Foreign Policy towards India

A : —

O : —

M : —

Ph. D. : Feb. 1990

R : M. J. Vinod

S : R. L. M. Patil

240. Corruption : Conceptual and Administrative problem.

A : —

O : —

M : —

Ph. D. : Dec. 1990

R : O. K. Richards

S : R. L. M. Patil

241. Idealism and Realism in Nehru's Foreign Policy.

A: —

O. —

M : —

Ph. D. : Dec. 1990

R : Mariama Joseph

S : R. L. M. Patil

242. Indian Federalism : Positive Aspects

A : —

O : —

M : —

Ph. D. : Dec. 1990

R : H. V. Nagaraj

S : R. L. M. Patil

243. Pakistan's Wars with India : Relating Agression to Insecurity.

A : International politics

O : Pakistan fought and lost wars with India on three occasions on grounds of psychological insecurity and considerations of political expediency on the part of a clique in the ruling circle. No systematic war-objectives or even war-plans existed.

M : Analytical/Narrative

Gen. : 1982 : ongoing

R : R. L. M. Patil

S : (Ind)

PSYCHOLOGY

Bangalore University

244. A Study of Psychological Factors Contributing to Purchase of Consumer Durables.

A : Consumer Behaviour

O : To analyse the social motives, understand the components in the product and perceptual components in the consumer durables.

M : Survey Research and Interview schedules.

M. Phil : Oct. 1988 : Sep. 1989

R : Girija Kumari

S : G. Mohan Kumar

245. Sex Role Attitudes and Type: A Behaviour Pattern affecting the material quality of the Dual Career Couple.

A : Women studies

O : The role of personality — sex role attitudes on the marital quality of dual career couples, Marital quality assessed using marital satisfaction scale and intimacy Band measure.

M : Sample : 90 (45 couple) 25-54 years age range professional workers. Interview and testing used. High care, low control and low type A behaviour were associated with higher satisfaction and great intimacy.

M. Phil : Dec. 1989 : ongoing

R : Aarathi Venkatesh

S : Indira Jai Prakash

246. Peer acceptability, personal and social competence and Interpersonal cognitive problem solving among pre adolescents.

A : Child Psychology

O : To examine the general assumption that children enjoying different peer acceptance status differ in their personal social competence and interpersonal cognitive problem solving skill.

M : Responses of 389 students in 5th, 6th and 7th standards obtained for a guess and a questionnaire in the first phase of the study. On the basis of peer nominations, a group of 145 subjects consisting of stars, Isolates, Rejectees, Mixers and others selected. These subjects were rated on Health Resource Inventory by their class teachers. Their responses were obtained for social problem solving skills and a questionnaire developed. A significant positive correlation between peer ratings of acceptance and teacher ratings of good student, gutsy and peer acceptability on HRI obtained.

M. Phil : Sep. 1988 : Oct. 1989

R : I. J. Sandhya Rani

S : Achala Umapathy

247. Study of Areas of Deprivations in the lives of drug addicts.

A : Clinical Psychology — Drug Addiction.

O : To find out the areas of deprivations, cognitive functioning, social desirability and parental attitudes in drug addicts. A sample of 30 drug addicts and a control group of 30 non-drug addicts studied on drug sample usage.

M : Questionnaire, prolonger deprivation scale, Bhatia's performance test of intelligence, Eysenck personality inventary, Marlowe, Growne social desirability scale and parental attitude research inventory along with a detailed personal information schedule.

M. Phil : Oct. 1988 : Oct. 1989

R : Manda S. Patil

S : Vinoda N. Murthy

248. Multidimensional study of psychosomatic disorders.

A : Psychosomatic disorders.

O : —

M : —

Ph. D. : Sep. 1980 : Dec. 1989

R : Tanya Machado

S : Vinoda N. Murthy

249. A study of factors affecting human resource development in government organisations.

A : Organisational Behaviour

O : —

M : —

Ph. D. : Aug. 1985 : ongoing

R : Manju Madhavan

S : Vinoda N. Murthy

250. Neuropsychology — Speech Disorders.

A : Clinical Psychology

O : —

M : —

Ph. D. : Aug. 1986 : ongoing

R : Sudha Nair

S : Vinoda N. Murthy

251. Psychological Correlates of Burn out among Human service Professionals.

A : Mental Health

O : To identify cases of burn out, study the variables related to them and evaluate the outcome of psychological intervention for reducing burn out.

M : A burn out inventory administered to a group of about 400 male/female teachers at the college and high school levels, physicians and nurses in two age ranges i.e. 35-40 years and 40-45 years. 25 subjects randomly selected from each group. Subjects experiencing high, moderate or low levels of burn out (50 in each group) administered in the second stage, a set of measurement devices used to see whether the three groups differ in their personal orientations, needs, life satisfaction, occupational stress, social support, cognitive style, intellectual ability and work atmosphere. In the third stage, about 30 subjects experiencing high degree of burn out involved in a psychological intervention to see its effect on burn out and related variables.

Ph. D. : Aug. 1988 : ongoing

R : S. Sujatha

S : Achala Umapathy

252. Life cycle changes in Aging Indian Women.

A : Psychosocial Geraentology

O : Psychosocial change that occur with aging in women, both rural and urban investigated. Sample – randomly selected from list of villages and street list of Bangalore city. Urban = 244, rural = 253, women aged 40 and above.

M : Interviews and Questionnaire used.

Gen : May 1986 : May 1989

R : Indira Jai Prakash

S : (Ind)

SOCIAL WORK

Madras School of Social Work

253. Health Communication and its effectiveness in Kaniyambadi Block, N. A. District, Tamil Nadu.

A : Rural Development – Communication Studies.

O : To assess the extent of usage of different communication methods and medias used by the grass root level workers, find out communicators attitude

towards Health Education, the extent of usage of techniques and media used in different methods of communication, measure the effectiveness of Health Communication and analyse the factors influencing its effectiveness.

M : Kaniyambadi Block in the North Arcot District, Health Aides, Multipurpose health workers, community nutrition workers and part time community health workers studied.

M. Phil : Feb. 1989 : Dec. 1989

R : A. Sarvesan

S : D. Varadharajan

254. A Study of Mahalir Mandrams in Kaniyambadi Block, N. A. Dist. Tamilnadu.

A : Rural Development – Women's Studies.

O : To study the activities and functions of Mahalir Mandrams, identify the factors responsible for the success or failure of Mahalir Mandrams, find out if Mahalir Mandrams have brought any awareness among its members with regard to the problems and laws which safeguard women's welfare, study the co-operation of family members in women attending Mahalir Mandram meeting and assess the response of officials, non-members and beneficiaries of the programmes of Mahalir Mandrams.

M : The structured interview schedule administered and three different interview schedules constructed. A number of variables like age, educational status, marital status, income of the respondent, total family per capita income, family expenditure pattern, saving habits, debts, family size, type of family and ownership pattern of house used.

M. Phil : Feb. 1989 : Dec. 1989

R : Shanthi Duraiswamy

S : D. Varadharajan

255. Restoring the Disabled to Usefulness — An Evaluation Study.

A : Welfare of the Handicapped

O : Evaluation of the central schemes of assistance to disabled persons and voluntary organisations in Tamilnadu.

M : 25 Agencies and 431 respondents interviewed using structured, pretested schedules.

Gen : July 1987 : Feb. 1989

R : P. K. Visvesvaran

S : Union Ministry of Welfare

SOCIOLOGY

Sri Venkateswara University

256. Women's Welfare Programmes in Andhra Pradesh – A study and an Evaluation in Chittoor District.

A : Women Studies

O : To critically examine the concept and policy of women's welfare,

investigate the nature and process of implementation of women's welfare programmes and evaluate them.

M : Primary data by schedules and secondary data.

Ph. D. : July 1987 : ongoing

R : Riaz Sultana

S : D. Venkateswarlu

257. Harijan Agricultural Labourers : A Sociological Study with Special Reference to Chandragiri Mandalam, Chittoor District, Andhra Pradesh.

A : Chandragiri Mandalam

O : The agricultural labourers from rural work force constituted Harijans and depressed classes. Land reforms measures and Panchayat Raj institutions have brought many changes in the agrarian sector which have important implication for the life patterns of agricultural labourers.

M : Stratified random technique and interview schedules.

Ph. D. : Feb. 1989 : March 1991

R : C. Renuka

S : S. Bhaskar

258. A Study of Inland Fishermen in Warangal District, Gangaputras.

A : Community Studies

O : To study the pattern of sociological aspects of the Gangaputras community, forecast their behavioural pattern, socio-logical and cultural aspects, know the economic standards and their way of living, highlight the political, cultural systems and the heriditary ritual beliefs prevailing.

M : —

Ph. D. : Nov. 1989 : ongoing

R : T. Srinivas

S : M. S. N. Reddy

259. Impact of Planned Development of Backward Classes – A Study in Chittoor District.

A : Sociology of Development

O : To know about the various welfare and development programmes and schemes for the upliftment of Backward Classes in Chittoor District, study their implementation, whether they have improved the social and economic status of the beneficiaries.

M : Primary data (By Schedule method).

Ph. D. : Dec. 1989 : ongoing

R : P. Venkatramana

S : D. Venkateswarlu

University of Mysore

260. Devadasi Cult — A Sociological Analysis

A : Women Studies

O : Oppressive Patriarchal Ideology – Main Determinant, Ethological Succeptability and Economic factors – Compensatory Determinants.

M : Non-participant observation, case studies and historical method.

Ph. D. : May 1985 : Dec. 1988

R : Jogan Shankar

S : U. A. Attar

University of Kerala

261. Institutional Control and Sexually Transmitted Diseases.

A : Medical Sociology

O : To study the problem of social and health institutions in controlling sexually transmitted diseases, influences of medical and health care on behavioural manifestations of individuals were assessed in the background of various social contexts.

M : Field work and case data.

Ph. D. : Feb. 1981 : June 1989

R : K. N. Vijayakumar

S : G. Narayana Pillai

262. Beliefs and Myths of a Kerala Tribe: A Study of the Paniyans of Wynad.

A : Tribal Studies

O : To study the beliefs and myths of the Paniyans, analyse the relation between the mode of production and the belief system and the beliefs and myths related to women.

M : —

Ph. D. : 1984 : ongoing

R : K. G. Dilip

S : Manubhaskar

263. Caste, Class and Agrarian Relations in Kerala.

A : Rural Sociology

O : To analyse the evolution of land relations in Kerala and analyse how far caste hierarchy tends to coincide with class irrespective of groups and power structure.

M : Survey Research

Ph. D. : April 1985 : June 1989

R : D. Abraham Vijayan

S : Manu Bhaskar

264. Medical Care Among Women — A study of Hospital Services.

A : Medical Sociology

O : To study the pattern of utilisation of medical care by women under hospital settings. Both the provision of medical care available to the women patients and the mode of real responsive behaviour developed by modem women in the private and public sector hospitals are covered by the programme.

M : Field work, examination of cases, discussions and the application of secondary data.

Ph. D. : April 1985 : June 1989

R : M. L. Leena

S : G. Narayana Pillai

265. Sociological Analysis of the problems and Barriers in the Development of the Disabled.

A : Sociology of Minority Group

O : To study the changing position of the disabled from traditional to the present, disability in relation to development and social barriers in the development of the disabled.

M : —

Ph. D. : July 1985 : ongoing

R : M. G. Prasanna

S : Manu Bhaskar

266. Sociocultural Factors of Rural Urban Suicide in Kerala.

A : Social Problem

O : To analyse the various factors leading to suicide in the state and study the role of family and the familial circumstances leading to suicide.

M : Survey Research

Ph. D. : Aug. 1986 : Sep. 1991

R : Babu George

S : Manu Bhaskar

267. The Relevance of Decentralising Power and Planning in Poverty Alleviation.

A : Rural Development

O : To study the rural leaders and the poor people's opinion about the factors responsible for poverty in their area, the problems faced by them in overcoming poverty and their perception about the relevance of entire decentralised concept in solving the problem.

M : Observation and Interview Schedule.

Ph. D. : Nov. 1987 : ongoing

R : M. Sam Roy

S : Jacob John Kattakayam

268. Social Status of Tribal Women in Kerala : A Case Study of the Kurichians of Wayanad.

A : Women Studies and Tribal Studies.

O : To analyse the changing status of Kurichian Women due to education, industrialisation, modernisation etc.

M : Participant observation.

Ph. D. : Nov. 1987 : Dec. 1991

R : J. R. Reghu Rama Das

S : Indu Kumari

269. Social and Psychological Adjustment of Elderly Nayar women in Kerala.

A : Aging, Women's Studies

O : To identify the adjustment problems of elderly Nayar women due to the disintegration of the matrilineal system of joint family, determine whether education plays any role in the process of adjustment to the changing environment, assess the impact of disintegration of the Tarawad on the socio-economic status of the elderly Nayar women and see how the socio-economic status affects the process of adjustment to the changing environment.

M : Interview schedule

Ph. D. : March 1988 : March 1991

R : Y. S. Sivan

S : M. Indu Kumari

270. Culture and Disease

A : Medical Sociology

O : An enquiry of the cultural parameters associated to the disease mechanism – the triodie influences in perpetuating a specific disease – Hypertension.

M : Field work and case data

Ph. D. : March 1988 : ongoing

R : T. K. Bhagyalatha

S : G. Narayana Pillai

271. Causes and consequences of child labour in Kerala.

A : Weaker sections

O : To find out the nature and exploitation of child labour in the coir industry, analyse the causes of child labour and determine the level of child labour in Kerala and to analyse the causes of low child labour in Kerala.

M : Interview schedule and observation.

Ph. D. : June 1988 : Dec. 1991

R : J. Ugin Gomez

S : Manu Bhaskar

272. Women in Unorganised Sector (A Study on Women Coir Workers in Kerala).

A : Women Studies

O : To find out wage and sex discrimination, health condition of female coir workers and job displacement due to mechanization.

M : Questionnaire and observation

Ph. D. : March 1989 : ongoing

R : S. Jayasree

S : Jacob John Kattakayam

273. Socio-Psychological Problems of Divorced Women in Kerala.

A : Women Studies

O : To find out reasons of divorce and how age, education, income and religion influences divorce, understand the socio-psychological problems faced by divorced women in our society and know if divorced women are exploited in our society, if so, to what extent.

M : Questionnaire and observation

Ph. D. : March 1989 : ongoing

R : R. Usha Devi

S : Jacob John Kattakayam

274. Migration and Social Change

A : Demography

O : To find the changes in the family set up as a result of gulf migration of one member of the family, find the changes in the social standing of the family as a consequence of a member's emigration to the Middle East.

M : Questionnaire and observation
Ph. D. : Sep. 1989 : ongoing

R : Sudha Krishnan

S : G. Ramachandra Raj

Madurai Kamaraj University

275. A Study of the Impact of Integrated Rural Development Programme on Development of Scheduled Castes (with reference to Agastheeswaram Panchayat Union, Kanyakumari District).

A : Rural Development

O : To assess the extent of awareness of and utilization by Scheduled Caste of IRDP Schemes, estimate the amount of change brought about by the schemes in the economic conditions of scheduled caste beneficiaries and their families and discover the lacunae if any in the IRDP programme vis-a-vis development of scheduled caste.

M : For the primary data : Interviews with selected Scheduled Caste respondents (beneficiaries and Non beneficiaries). For the Secondary data : Use of records of the Panchayat Union and of the lead bank.
M. Phil : Aug. 1989 : July 1990

R : N. Kannan

S : C. N. Natarajan

276. A Study of the Impact of Integrated Rural Development Programme on Development of Women (with reference to Thovali Panchayat Union, Kanyakumari District).

A : Rural Development

O : To find out the extent of awareness of and utilization by women of IRDP schemes, to find out the amount of change brought about by the IRDP schemes in the economic conditions of women beneficiaries and their families, and the lacunae if any in the IRDP schemes vis-a-vis development of women.

M : For the primary data : Interviews with selected women respondents (beneficiaries data : Use of records of the Panchayat Union and of the lead bank.
M. Phil : Aug. 1989 : July 1990

R : K. Muthiah Pillai

S : G. Karunanithi

277. A Sociological Study of the Role of Commercial Banks in Rural Development.

A : Rural Development

O : To identify the areas of development on which the banks concentrate, evaluate the procedures adopted by the banks for credit delivery, examine the social composition of beneficiaries of the banks' assistance and examine the extent to which the objectives of banks' assistance programme have been realized.

M : A certain number of villages will be selected from the service areas of a public sector bank, a private sector bank and a regional rural bank in Tirunelveli Kattabomman

District in proportion to the number of rural branches these banks have. The beneficiaries of the banks' assistance in the selected villages will be interviewed and data collected from them with the aid of interview guide. Observation will be employed for examining how far the objectives of banks' assistance programme have been realized.

Ph. D. : Nov. 1989 : Nov. 1994

R : P. Sritharan

S : C. N. Natarajan

PART II

Specialisations

Area of Specialisation		Centre
		Agriculture
Agricultural Economics	—	Osmania University Sri Venkateswara University University of Hyderabad Administrative Staff College, Hyderabad Madurai Kamaraj University, Madurai Bharathidasan University, Tamil Nadu Madras Institute of Development Studies
Agricultural Finance	—	University of Agri. Sciences, Bangalore
Agricultural Marketing	—	Administrative Staff College, Hyderabad University of Agricultural Sciences, Bangalore Tamil Nadu Agricultural University, Tamil Nadu
Agricultural Price Analysis	—	Bharathidasan University Tamil Nadu Agricultural University
Environmental Economics	—	Administrative Staff College, Hyderabad Madurai Kamaraj University Tamil Nadu Agricultural University Madras Institute of Development Studies
Farm Management	—	University of Agricultural Sciences, Bangalore Tamil Nadu Agricultural University
Forest Economics	—	Tamil Nadu Agricultural University
International Commodity Trade	—	Tamil Nadu Agricultural University
Production Economics	—	Madurai Kamaraj University Tamil Nadu Agricultural University
Resource Economics	—	Tamil Nadu Agricultural University
Rural Development	—	Administrative Staff College, Hyderabad Madurai Kamaraj University Tamil Nadu Agricultural University Madras School of Social Work, Madras Madras Institute of Development Studies

Area of Specialisation		Centre
		Anthropology
Cultural Anthropology	—	Karnatak University
Social Anthropology	—	Karnatak University University of Kerala
		Commerce & Business Administration
Entrepreneurship	—	Madurai Kamaraj University
Finance	—	Madurai Kamaraj University Stella Maris College
Management Philosophy	—	Madurai Kamaraj University
Production Management	—	Madurai Kamaraj University
		Demography
Fertility and Family Planning	—	Sri Venkateswara University
Infant Mortality	—	Sri Venkateswara University Madras Institute of Development Studies
Population Education	—	Sri Venkateswara University Madras Institute of Development Studies
Socio Demography	—	Sri Venkateswara University
		Economics
Banking	—	Sri Venkateswara University University of Mysore
Development Economics	—	Sri Venkateswara University University of Hyderabad University of Agricultural Sciences Bangalore Madras Institute of Development Studies CRNIEO
Econometrics	—	Osmania University University of Hyderabad Madurai Kamaraj University

Area of Specialisation		Centre
Economic Theory	—	Madurai Kamaraj University Madras Institute of Development Studie
Energy Economics	—	Administrative Staff College, Hyderabad
Industrial Economics	—	Bharathidasan University Madras Institute of Development Studies
International Economics	—	Osmania University Sri Venkateswara University CRNIEO
Labour Economics	—	Madurai Kamaraj University Madras Institute of Development Studies Stella Maris College
Macro Economic Analysis	—	Osmania University
Operations Management	—	Administrative Staff College, Hyderabad
Public Finance	—	Sri Venkateswara University Madurai Kamaraj University Stella Maris College
Political Economy	—	Osmania University Madras Institute of Development Studies
Urban Economics	—	Madurai Kamaraj University Madras Institute of Development Studies
Welfare Economics	—	University of Mysore Madras Institute of Development Studies
		Education
Adult & Continuing Education	—	University of Madras
Curriculum Development	—	Madurai Kamaraj University
Economics of Education	—	University of Madras
Educational Evaluation	—	Madurai Kamaraj University University of Madras
Education Management	—	University of Madras
Educational Psychology	—	Madurai Kamaraj University

Area of Specialisation		Centre
Educational Technology	—	Madurai Kamaraj University University of Madras
Higher Education	—	University of Madras
Teacher Education	—	University of Madras
		History
Ancient Indian History	—	University of Hyderabad
Epigraphy	—	University of Hyderabad
Medieval Indian History	—	University of Hyderabad
		Political Science and Public Administration
Indian Government and Politics	—	Sri Venkateswara University University of Bangalore
Industrial Economics	—	Osmania University
International Politics	—	Sri Venkateswara University University of Bangalore
Local Self Government	—	Sri Venkateswara University
Political Economy	—	Osmania University Madras Institute of Development Studies
		Philosophy
Analytical Philosophy	—	Karnatak University
Indian Philosophy	—	Karnatak University
		Psychology
Clinical Psychology	—	Bangalore University
Counselling and Guidance	—	Bangalore University
Industrial Psychology	—	Bangalore University

Area of Specialisation		Centre
		Social Work
Family and Child Welfare	—	Madras School of Social Work
Tribal Development	—	Madras School of Social Work
		Sociology
Medical Sociology	—	University of Kerala
Minority Groups	—	Sri Venkateswara University University of Kerala
Political Sociology	—	University of Kerala
Scheduled Castes	—	Sri Venkateswara University Madras Institute of Development Studies
Social Change	—	University of Kerala
Social Demography	—	Sri Venkateswara University
Sociology of Education	—	University of Kerala Madras Institute of Development Studies
Sociology of Kinship	—	Madurai Kamaraj University
Sociology of Social Stratification	—	Madurai Kamaraj University.

*APPENDIX

Addresses of the Universities, Research Institutions and Colleges which responded to the Twentieth Census*

1. Osmania University
   Hyderabad - 500 007
   Andhra Pradesh.

2. Prof. & Head
   Dept. of Political Science &
   Public Administration
   Sri Venkateswara University
   Tirupathi - 517 502.

3. University of Hyderabad
   Central University P.O.
   Hyderabad - 500 134.

4. Administrative Staff College of India
   Bella Vista
   Hyderabad - 500 049.

5. Dept. of Psychology
   Bangalore University
   Bangalore - 560 056.

6. Dept. of Philosophy
   Karnatak University
   Dharwad - 580 003.

7. University of Agricultural Sciences
   Hebbal
   Bangalore - 560 024.

8. Prof. & Head
   Dept. of Studies in Economics
   and Co-operation
   University of Mysore
   Manasa Gangotri
   Mysore - 6.

9. Kousali Institute of Management
   Studies
   Dharwad - 580 003
   Karnataka State.

10. Cochin University of Science
    and Technology
    University of Cochin
    Cochin - 682 022.

11. Dept. of Sociology
    University of Kerala
    Kariavattom P.O.
    Trivandrum - 695 581.

12. Dept. of Economics
    Bharathidasan University
    Tiruchirapalli - 620 024.

13. Madurai Kamaraj University
    Palkalai Nagar
    Madurai - 625 021.

14. Tamil Nadu Agricultural University
    Dept. of Agricultural Economics
    Coimbatore - 641 003.

15. Dept. of Education
    University of Madras
    Chepauk
    Madras - 600 005.

16. The Director
    CRNIEO
    1, First Cross Street
    Wallace Garden
    Madras - 600 006.

17. The Director
    Madras Institute of
    Development Studies
    79, Second Main Road
    Gandhinagar, Adyar
    Madras - 600 020.

18. The Madras School of Social Work
    32, Casa Major Road
    Egmore, Madras - 600 008.

19. The Principal
    Stella Maris College
    Cathedral Road
    Madras - 600 086.

**Note:* Enquiries may be addressed to the researcher(s) care of the department in the institution in which he/she (they) are working.

Publications of the Institute consist of the following categories

1. Publications brought out by Messers Sangam* Publishers : These consist of a series of monographs mainly relating to Rural Development of Tamilnadu brought out between 1972 & 1980. Detailed list including prices available on request from the Programme Coordinator of MIDS. Orders may be placed with Sangam publishers, 11, Sunkurama Chetty Street, Madras - 600 001 for these.

2. Cyclostyled Publications : These consist of Working Papers, Digest Series, Data Series, Popular Series, Interns Reports and Offprint Series brought out since 1978. Detailed list available on request from the Programme Coordinator of MIDS.

3. Occasional Publications of the Institute include :

a) *A Manual of Sources of Data on Tamil Nadu Economy* (1979) published by MIDS pp. 92, priced at Rs. 10/- per copy and Rs. 6/- for bonafide research scholars.

b) *Area Studies Bibliography Tamil Nadu* (1984) published by MIDS pp. 226 Rs. 30/- for paper cover & Rs. 40/- bound volume.

c) Social Science Research in South Indian Universities — A Listing and Review of Ph.D. Dissertations (989) Published by MIDS and ICSSR, SRC. pp. 260, Rs. 20/-

a), b) and c) obtainable from the Programme Coordinator of MIDS.

4. Special Publications*

a) *Poverty — An interdisciplinary Approach* edited by B. Sarveswara Rao & V. N. Deshpande (982) & published for MIDS by M/s. Somaiya Publishers. Pvt. Ltd., Bombay pp. 296, Rs. 125/-

b) *Guide to Research in Economics*, edited by C. T. Kurien (second edition) (1985) & Published for MIDS by M/s. Rainbow Publishers, Coimbatore, pp. 390, Rs. 100/-

c) *Some thoughts on the Seventh Plan* by Dr. Malcolm S. Adiseshiah (1985 & published for MIDS by M/s. Dialogue Publishers, New Delhi, pp. 136, Rs. 70/

d) *Shaping National Events* by Dr. Malcolm S. Adiseshiah (1985) & published for MIDS by M/s. Dialogue Publishers, New Delhi, pp. 335, Rs. 180/-

e) *Tamil Nadu Economy : Performance and Issues* by MIDS (1988) & Published for MIDS by Oxford and IBH Publishing Co. Pvt. Ltd. Delhi, Rs. 60/-

* These publications may be ordered directly from the respective publishers.

Regd. No. M. 8831

MADRAS INSTITUTE OF DEVELOPMENT STUDIES (MIDS)

The Institute was founded by Dr. Malcolm S. Adiseshiah in 1971 and was reconstituted in 1977 as a National Research Institute within the framework of the Indian Council of Social Science Research, New Delhi.

The aim of the Institute is to contribute to the economic and social development in Tamilnadu and India.

The activities of the Institute are :

—Research leading to Ph.D. Degree

—Studies and action-oriented research in micro-development problems

—Documentation and library service in development problems

—Exchange and dialogue at the State, National snd International levels on development issues

—Publication of papers and results of the Institute.

Editor : Dr. Malcolm S. Adiseshiah, Published by Dr. Nirmal Sengupta for Madras Institute of Development Studies, 79, Second Main Road Gandhinagar, Adyar, Madras 600 020, India
printed at reliance printers, 9, sardar patel road, madras-600 020